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Copyright (c) 1993 - 2004 Compugen Ltd
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Q9N1186
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1 $97899
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p97899 rattus sp.
QBC4u6 mus musculu
QBcar0 mus musculu
Q28236 cervus elap
Q9n186 capreolus c
Q9np10 homo sapien
Q9n1c1 bos taurus
Q114620 homo sapien
Q114620 homo sapien
Q13429 homo sapien
Q13430 meleagris g
Q90yk0 gallus gall
Q9x888 equus cabal
Q8uwf9 salmo salar
Q86227 bos taurus
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Q911461
Q991230
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Q9i9vy brachydanio
Q9pwk2 carassius a
Q9gsr6 megalobrama
Q9y182 carassius a
Q800d5 megalobrama
Q9y182 carassius a
Q800d5 megalobrama
Q9ibi0 cyprinus ca
Q73720 oreochromis
Q42289 oreochromis
Q42289 oreochromis
Q422836 myoxocephal
Q93781 caenorhabdi
Q17193 bombyx mori
Q8qc4 trichosurus
Q9cuy2 mus musculu
Q9ygy5 oreochromis
Q5ch5760 chilo iride
Q9pud0 brachydanio
Q8uni9 brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9pu30 oreochromis
Q9ptb0 gallus gall
Q862g1 bos taurus
Q91475 salmo salar
Q9myx4 bos indicus
Q91231 oncorhynchu
Q93607 paralichthy
Q91230 oncorhynchu
Q93607 paralichthy
Q91230 oncorhynchu
Q940et4 myoxocephal
Q7zzt6 gallus gall
Q7zzt6 paralichthy
Q99137 paralichthy
Q99137 paralichthy
Q99sx5 paralichthy
Q91475 sgnus gullus
Q91489 gallus gall
P81268 oncorhynchu
Q91443 squalus aca
Q73721 tilapia sp.
Q42429 lates calca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9myz6 trichosurus
Q800n0 morone chry
Q800m9 morone saxa
Q800m9 morone chry
Q800m7 morone amer
Q91165 capreolus c
Q91161 concorhynchu
Q91476 salmo salar
Q8mii5 sus scrofa
  Q8c8i3 mus musculu
Q9vbr3 drosophila
Q88hd3 pseudomonas
Q8k178 mus musculu
Q9h289 homo sapien
Q95by7 rhizobium m
Q9d454 mus musculu
                                                                                          Q8t2y7 trypanosoma
Q9nsq6 homo sapien
Q980v3 sulfolobus
                                                                                                                      Q83nn4 tropheryma
Q83mv4 tropheryma
Q8t2y7 trypanosoma
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Q800e6
Q9iaa0
P81416
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6 paralichthy
0 carassius a
6 oncorhynchu
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RESULT 1 002807

002807; 002807 Q9Z2ZZ Q96JP3 Q7VSI8 Q856D7 Q90999 Q21740 Q811S2 Q811S2 Q811S2 Q810666

086ZL0

ALIGNMENTS

69

B

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L Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.

-!- SUBCELULLAR LOCATION: SECRETED (BY SIMILARITY).

C-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; Y10691; CAA71694.1; -.

R HSSP; P01343; 2GF1.

GO; GO:0005176; C:extracellular; IEA.

GO; GO:0005179; F:bormone activity; IEA.

GO; GO:0005179; F:bormone activity; IEA.

R GO; GO:0007582; P:physiological processes; IEA.

R InterPro, IPR004825; Ins/IGF/relax.

R PAINTS; PR00049; INSULINA.

R PRINTS; SM00078; ILGF; 1.
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01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Pro-insulin like growth factor IA (IGFIA) (Fragment)
Bubalus bubalis (Domestic water buffalo)
Bubalus bubalis (Domestic water buffalo)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bubalus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Daliri M., Appa Rao K.B.C., Kaur G., Garg S., Patil S., Totey "The expression of growth factor ligand and receptor genes in preimplantation stage buffalo embryos and oviductal epithelial
   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q96jp3 homo sapien
Q7vsi8 bordetella
Q856d7 mycobacteri
Q90999 gallus gall
Q21740 caenorhabdi
Q811s2 plasmodium
Q81vn6 mus musculu
Q8c208 mus musculu
Q8c666 mus musculu
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Q96jp3 h
Q7vsi8
Q856d7 m
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Matches 31
Query Match
                                                                MCD; MGI:2444166; C730016P09Rik.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; F:physiological processes; IE
InterPro; IPR004825; Ins/IGF/relax.
Pfam; pF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00062; INSULIN; 1.
SEQUENCE 153 AA; 17093 MW; 967596AEACOCA3
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HSSP; P01343; 2GF1.
G0; G0:0005576; C:extracellular; IEA.
G0; G0:0005179; F:hormone activity; IEA.
G0; G0:0007582; P:physiological processes; IE
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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Q8C4U6;
01-MAR-2003
01-MAR-2003
01-CCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                the RIKEN Genome Exploration Research "Analysis of the mouse transcriptome to,770 full-length cDNAs."
Nature 420:563-573(2002).
EMBL, AKOB1019; BAC38117.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
SEQUENCE
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Kato H., Okoshi A., Miura Y., Noguchi T.;
"A new cDNA clone relating to larger molecular species of like growth factor-I mRNA.";
Agric. Biol. Chem. 54:1599-1601(190).
Agric. Biol. Chem. 54:1599-1601(190).
-!- SUBCELULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C57BL/6J; TISSUE=Cerebellum; MEDLINE=22354683; PubMed=12466851; The FANTOM Consortium,
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Mammalia; Eutheria;
NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=C57BL/6J; T
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127 AA;
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Rodentia;
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; 104E126BCFCA5CB7
       Score 31;
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SOUTH TO SERVING SOUTH

SEQUENCE FROM N.A.

SSUE=Lung;

RESULT P97899 AC P9 DT 01 DT 01 DT 01 DT 01 OS RE OC EN

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PRELIMINARY;

127

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p97899, 01-MAY-1997 (TrEMBLrel. 03, Created) 01-MAY-1997 (TrEMBLrel. 03, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Insulin-like growth factor I.

Rattus sp. Eukaryota; Metazoa; Mammalia; Eutheria;

Chordata; Rodentia;

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30 Q,

YGSSIRRAPQTGIVDECCFRSCDLRRLEMYC YGSSIRRAPQTGIVDECCFRSCDLRRLEMYC

9 36 Query Match Best Local S Matches 31

Similarity

36.0%; bc. 100.0%; Pr/

Score 31; DB (; Pred. No. 5.9)

DB 6; Le . 5.9e-25; ches 0;

Length 69

Conservative

SEQUENCE

69 AA;

7501 MW;

ACFE4DF0AF49B6C6 CRC64;

PROSITE; PS00262; INSULIN; 1.
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Matches
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Q28236;
Q1-NOV-1996
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Q8CAR0;
01-MAR-2003
01-MAR-2003
01-OCT-2003
TISSUE=ANTLER;

MEDIINE=98233260; PubMed=9571767;

Francis S.M., Suttie J.M.;

"Detection of growth factors and proto-oncogene mRNA in the growing tip of red deer (Cervus elaphus) antler using reverse-transcriptase polymerase chain reaction (RT-PCR).";
                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
Cervidae; Cervinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
SEQUENCE 165 AA; 18473 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the RIKEN Genome Exploration Research Group Phase I & II
"Analysis of the mouse transcriptome based on functional
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
EMBL; AKO38119; BAC29934.1; -.
EMBL; AKO38119; BAC29934.1; -.
MGD; MGI:2444166; C730016879Rik.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005782; P:hormone activity; IEA.
GO; GO:00057582; P:physiological processes; IEA.
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                    Cervidae; Cervin
NCBI_TaxID=9860;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Thymus;
MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                        Cervus elaphus (Red
                                                                                                                                                                                                                                                                                                                                                                                                                          Insulin-like growth IGF1 OR IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
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se growth factor I
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llarity 100.0%;
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                             Chordata;
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I (IGF-I) (Somatomedin C)
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Best Local S
Matches 26
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Q9N1S6;
Q1-OCT-2000
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                                                                                                       HSSP; P01343; 2GF1.

GG; GO:0005576; C:extracellular; IEAGC; GO:0005179; F:hormone activity; GG; GO:0007582; P:physiological proc InterPro; IPR004825; Ins/IGF/relax. Pfam; PF00049; Insulin; 1.
                                                                                                                                                                                                                                               EMBL; AF152588;
HSSP; P01343; 20
                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=20532861; PubMed=11078967; Wagener A., Blottner S., Goritz F., "Detection of growth factors in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria; Ceta
Cervidae; Odocoileinae;
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-!- FUNCTION: THE INSULIN-LIKE GROWTH FACTORS,
-!- EUNCTIONALLY AND FUNCTIONALLY RELATED
MUCH HIGHER GROWTH-PROMOTING ACTIVITY.
-!- SUBCELLULAR LOCATION: SECRETED.
-!- SUBCELLULAR EDECOMOS TO THE INSULIN/IGF/REL
                                                                                                                                                                                                                                                                                                      capreolus).",
Anim. Reprod. Sci. 64:65-75(2000).
-i- SUBCELLULAR LOCATION: SECRETED
-i- SIMILARITY: BELONGS TO THE INSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Capreolus capreolus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IGF-I
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SSP; P01343; 2GF1.

O; GO:0005576; C:extracellular; IEA.
O; GO:0008083; F:growth factor activity;
O; GO:0005179; F:hormone activity; IEA.
GO:0005179; F:physiological processes
GO:0007582; F:physiological processes
Ins/IGF/relax.
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SM00078; IIGF; 1.
E; PS00262; INSULIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26;
                                                         PR00276; INSULINA.
SM00078; IlGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrembLrel. 15, Created)
(TrembLrel. 15, Last sequence up
(TrembLrel. 24, Last annotation
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100.0%; Pr
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Cetartiodactyla, Run
nae, Capreolus.
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Pred. No.
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E PEPTIDE.
BY SIMILARITY.
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INSULIN/IGF/RELAXIN FAMILY
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                                                                                                                                                                    processes;
                                                                                                                                                                                   , IEA.
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CRC64;

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Query Match Best Local

ch 30.2%; 1 Similarity 100.0%; 26; Conservative

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Mismatches

Indels

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Gaps

Score 26; Pred. No.

DB

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Length

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1.1e-19;

Matches

11 25

RRAPOTGIVDECCFRSCDLRRLEMYC 36

RRAPOTGIVDECCFRSCDLRRLEMYC

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Q9NP10 Q9NP10; 01-OCT-2000 (TrEMBLrel 1 01-OCT-2000 (TrEMBLrel 1 01-JUN-2003 (TrEMBLrel 2

15, 15, 24,

PRT;

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"A primary screen of the bovine genome for quantitative trait
If affecting twinning rate.";
L Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.

C --- SUDECELLULAR LOCATION: SECRETED (BY SIMILARITY).

C --- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
R EMBL; AF210387; AAF72409.1; ---
R EMBL; AF210386; AAF72409.1; JOINED.
R EMBL; AF210386; AAF72409.1; JOINED.
R HSSP; P01343; 2GF1.
R GO; GO:0005576; C:extracellular; IBA.
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Best Local S
Matches 26
       Query Match
Best Local Similarity
Matches 26; Conserv
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Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Pr
NCBI TaxID=9606;
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Q14620;
Q1-NOV-1996
Q1-NOV-1996
Q1-NOV-1996
Q1-JUN-2003
                                                                                                                                              Signal.
SIGNAL
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MEDITNE=91187000; PubMed=2082190;

MEDITNE=91187000; PubMed=2082190;

Tobin G., Yee D., Brunner N., Rotwein P.;

Tobin G., Yee D., Brunner N., Rotwein P.;

The novel human insulin-like growth factor I messenger RNA
in normal and tumor cells.";

Mol. Endocrinol. 4:1914-1907(1990).

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                          EMBL; M37484; AAA52789.1; -.
PIR; A36552; A36552.
HSSP; P01343; ZGF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005579; F:hormone activity; IEA.
GO; GO:00075872; F:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
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GG; GO:0005179; F:hormone activity; IEA.
GG; GO:0007582; F:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; ILGF; 1.
                                                                                                                                                                                          PRINTS; PRO0277; INSULINB.
SMART; SM00078; ILGF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequen
01-UN-2003 (TrEMBLrel. 24, Last annota
Insulin-like growth factor I precursor.
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NON TER 1 1 1
SEQUENCE 133 AA; 14674 MW
                                                                                                    SEQUENCE
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137
       Conservative 0;
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15177
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       30.2%; Score 26; DB
100.0%; Pred. No. 2e-
cive 0; Mismatches
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                                                                                               POTENTIAL.
INSULIN-LIKE GROWTH FACTOR I.,
BFCCOD11E32AB75D CRC64;
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DB 4;
5. 2e-19;
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uane J., Gomez-Raya
quantitative trait
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                                                   Length 137;
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RESULT OF SECOND DESCRIPTION OF SECOND DESCR

NCBI_TaxID=9606; Eukaryota; Metazoa; Mammalia; Eutheria; Homo sapiens

(Human)

Chordata; Primates;

Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

SEQUENCE FROM N.A.

MEDIINE=88065102; PubMed=3683205;
Rall L.B., Scott J., Bell G.L.;
"Human insulin-like growth factor I and II messenger RNA: isolation complementary DNA and analysis of expression.";
Meth. Enzymol. 146:239-248(1987).
-i- SUBCELLULAR LOCATION. SECRETED (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

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EMBL; M29644; AAA52543.1; HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.

IEA

Insulin-like IGF1.

Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora;
Bovidae; Bovinae; Bos.
NCBI_TaxID=9913;

Euteleostomi; cora; Bovoidea;

Q9NIC1; Q9NIC1; Q1-QCT-2000 (TrEMBLrel. 15, : Q1-QCT-2000 (TrEMBLrel. 24, Q1-JUN-2003 (TrEMBLrel. 24,

, Created)
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RRAPQTGIVDECCFRSCDLRRLEMYC 86 RRAPQTGIVDECCFRSCDLRRLEMYC 36 Query Match Best Local S Matches 26

Similarity

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Score 26; Pred. No.

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Length 130; Indels

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POTENTIAL.
POTENTIAL.
970FBAAECFA0352D CRC64;

ΑA;

Signal.

Pfam; PF00049; Insulin; 1. PRINTS; PR00277; INSULINB. SMART; SM00078; IlGF; 1.

PROSITE; PS00262; INSULIN;

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RRAPOTGIVDECCFRSCDLRRLEMYC

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Q13429
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Best Local 9
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GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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Q13429;
Q1-NOV-1996
Q1-NOV-1996
Q1-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P79167;
MEDLINE=97013467; PubMed=8860303; Otte K., Rozell B., Gessbo A., Engstrom W.; "Cloning and sequencing of an equine insuliand its expression in fetal and adult tissu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mitogenic IBE1 peptide.";
Endocrinology 136:1939-1944(1995).
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=95237119; PubMed=7720641;
Chew S.L., Lavender P., Clark A.J., Ross R.J.;
"An alternatively spliced human insulin-like growth factor-I
transcript with hepatic tissue expression that diverts away:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Crania
Mammalia; Eutheria; Perissodactyla;
MCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2003 (
Insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                               TISSUE=Liver;
                                                                                                                                                                                 SEQUENCE OF 1-122 FROM N.A
                                                                                                                                                                                                                                                                                           Equus caballus (Horse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                 IGF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-1997
01-OCT-2000
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P01343; 2GF1.
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(TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TIEMBLrel. 03, Created)
(TIEMBLrel. 15, Last sequence update)
(TIEMBLrel. 24, Last annotation update)
growth factor IB precursor (IGF-IB) (S
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Pred. No.
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                                                                                                                                                                                                                                                                                   Equidae;
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                                 insulin-like growth factor I
       tissues.";
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2e-19;
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Best Local (
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=Big 6 ML Tom; TISSUE=Liver;
Czerwinski S.M., Ashwell C.M., McMuttry J.P.;
"Cloning of turkey insulin-like growth factor-I (IGF-I)."
"Cloning of turkey insulin-like growth factor-I (IGF-I)."
"Choning of turkey insulin-like growth factor-I (IGF-I)."
"Cloning of turkey insulin-like growth factor-I (IGF-I)."
"Committed (JUN-1998) to the EMBL/GenBank/DDBJ databases.
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
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01-JUN-2003 (
Insulin-like
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EMBL; U85271; .
HSSP; P01343;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO; GO:0005576; C:extracellular; IEA, GO; GO:0008083; F:growth factor activity; GO; GO:0005179; F:hormone activity; IEA, GO; GO:0007582; P:physiological processes; InterPro; IPR004825; Ins/IGF/relax.
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                                                                                                                                                                                                                     Meleagris
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                                                                                                                                                                                                   Eukaryota;
                                                                                                                                                                              Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: SECRETED. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=IGF-IA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Comp. Endocrinol. 102:11-15(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                          84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family;
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Eamily; Growth
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                                                                                                                                                                        gallopavo (Common turkey).
; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
ia; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
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3 (TrEMBLrel. 08, L
3 (TrEMBLrel. 24, L
ce growth factor-I;
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AAB47484.1; -.
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109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15612 MW;
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E PEPTIDE.
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Y SIMILARITY.
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2e-19;
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Q90YMO
ID Q90YN
AC Q90YN
AC Q90YN
AC Q90YN
DT 01-DE
DT 101-DE
RESULT 14
Q9XS88
ID Q9XS8
AC Q9XS8
DT 01-NC
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GO; GO:0005179; F:hormone activity; II
GO; GO:0007582; P:physiological proces
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; I1GF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q90YKO;
Q90YKO;
Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
Q1-DEC-2003 (TrEMBLrel. 24, Last annotation update)
Q1-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor II (Fragment).
Gallus gallus (Chicken).
Gallus gallus (Chicken).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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SIGNAL
CHAIN
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NON TER
SEQUENCE
      01-NOV-1999
                                                           Q9XS88;
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Traits.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yan B., Li N.;
"Single Nucleotide Polymorphism Analysis in Chicken Insulin-like
Growth Factor-II Gene and its Association with Growth and Carcas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00262; INSULIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP;
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P01343; 2
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11; Conserv
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9; Conserv
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49
153 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53 AA;
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   (TrEMBLrel. 12, (TrEMBLrel. 12,
                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                        Conservative
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118 I
17295 MW;
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   Created)
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                                                                                                                                                                                                                                                                                                                                                     Score 9; DB 1; Pred. No. 0.0
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Pred. No.
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INSULIN-LIKE GROWTH FACTOR-I.
SAF1E5B8D13C70B5 CRC64;
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                                                                                             PRT;
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·· IEA.
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      sequence update)
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                                                                                                                                                                                                                                                                                                                                                                                    DB 13;
0.083;
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0.0015;
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                                                                                             92
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P SEQUENCE FROM N.A.

P Yadetie F, Male R,

Yadetie F, Male R,

T "Effects of 4 -nonylphenol on ovarian gene expression in juvenile

T "Atlantic salmon (Salmo salar).",

Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.

C -!- SUBMITTER LOCATION. SECRETED (BY SIMILARITY).

C -!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

R EMBL, AY049955, AAL299261; --

R GG; GG:0005576; C:extracellular; IEA.

R GG; GG:0005179; F:hormone activity; IEA.

R GG; GG:0005179; F:hormone activity; IEA.

R GG; GG:0007582; P:physiological processes; IEA.

R InterPro, IPRO04825, Ins/IGF/relax.

R Pfam; PF00049; Insulin; 1.
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8UWF9;
01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation updat
Insulin-like growth factor II (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF097586; AAD25989.1; -
HSSP; P01344; IIGL.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIINE=99160468; PubMed=10051323;
Caetano A.R., Pomp D., Murray J.D., Bowling A.T.;
"Comparative mapping of 18 equine type I genes ass
cell hybrid analysis.";
Mamm. Genome 10:271-276(1999).
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Salmo salar (Atlantic salmon).
Eukaryota; Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
NCBI_TaxID=8030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                    PS00262; INSULIN; 1.
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(larity 100.0%;
Conservative (
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? AA;
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2 AA;
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                                                                    10716 MW;
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  10.5%;
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  Score 9; 1
Pred. No.
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                                                                    4818F230A1929634 CRC64;
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type I genes assigned
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RESULT 17
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Q7T107;
01-OCT-2003
01-OCT-2003
01-OCT-2003
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01-JUN-2003
01-JUN-2003
                            "Effect of vitamin A level during the development (Dicentrarchus labrax) larvae."; Submitted (JUL-2003) to the EMBL/GenBank/DDBJ datai EMBL; AJ579342; CAE18111.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
PROSITE; P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-UIN-2003 (TrEMBLrel. 24, Created)
01-UIN-2003 (TrEMBLrel. 24, Last sequence update)
01-UIN-2003 (TrEMBLrel. 25, Last annotation update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Similar to insulin-like growth factor II (Fragment)
Bos taurus (Bovine).
Eukaryota, Metazoa; Chordara; Craniata; Vertebrata;
Mammmalia; Eutheria; Cetartiodactyla; Ruminantia; Pe
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                                                                                    SEQUENCE FROM N.A.
Gisbert E., Villeneuve L.A.N.,
                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidei; Moronidae; Dicentrarchus.
                                                                                                                                                                                  Dicentrarchus labrax (European sea bass).
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                                                                                                                      NCBI_TaxID=13489;
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IGF1.
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104 AA;
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(TIENMEIRE1. 25, Last annotation
prowth factor 1 (Fragment).
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11708 MW;
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  5CC569A80B8F6FF2 CRC64;
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01-OCT-2000
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01-JUN-2003
01-JUN-2003
01-OCT-2003
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O1-JUN-2003 (TREMBLrel. 24, Created)
O1-JUN-2003 (TREMBLrel. 24, Last sequence update)
O1-JUN-2003 (TREMBLrel. 25, Last annotation update)
O1-OCT-2003 (TREMBLrel. 25, Last annotation update)
Insulin-like growth factor I (fragment).
Morone chrysops x Morone saxatilis (White bass x Striped bass).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Actinopterygii; Acanthopterygii; Percomorpha; Perciformes; Percoide:
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 Fruchtman
"Cloning c
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor 2 (Fragment).
Trichosurus vulpecula (Brush-tailed possum).
Eukaryota, Metazoa, Chozdata, Craniata, Vertebrata,
Mammalia, Metatheria, Diprotodontia, Phalangeridae;
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-:- SUBCELLULAR LOCATION: SEI-
-:- SIMILARITY: BELONGS TO 7
EMBL; AF276074; AAF76900.1;
HSSP; P01344; 1IGL.
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SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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Saunders M.C., Gemmell R.T., Curlewis J.D.;
"Insulin-like growth factor 2 cDNA cloning and ontogeny of
expression in the liver of the marsupial brushtail possum
                        SEQUENCE FROM N.A.
                                            Moronidae; Morone.
NCBI_TaxID=45352;
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37; GO:0005179; F:hormone activity IEA.
30; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
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106 AA;
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IGF-I and the type
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12021 MW;
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ON: SECRETED (BY SIMILARITY).
S TO THE INSULIN/IGF/RELAXIN FAMILY
  Borski R.J.;
ype I IGF receptor
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o. 0.15;
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Trichosurus.
     from
                                                                          Percoidei;
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GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IE
InterPro; IPR004825; Ins/IGF/relax.
InterPro; IPR004825; Mollusc_ins.
Pfam; PP00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
PRODOm; PD015667; Mollusc_ins; 1.
SMART; SM00078; I1GF; 1.
PROSITE; PS00262; INSULIN; 1.
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PRINTS; PR00277; INSULINB.

PRODOM; PD01567; MOlluce_ins; 1.

PROSITE; SM00078; I1GF; 1.

PROSITE; PS00262; INSULIN; 1.

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SEQUENCE 108 AA; 11768 MW; 7894
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01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Insulin-like growth factor I (Fragment).
Morone saxatilis (Striped bass).
Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii, Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidei
Moronidae; Morone.
NCBI_TaxID=34816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (UUL-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AF402670; AA073855.1; -. GO; GO:0005576; C:extracellular; IEA. GO; GO:0005179; F:hormone activity; IEA. GO; GO:0007582; P:physiological processes; IEA. InterPro; IPR004825; Ins/IGF/relax. InterPro; IPR003234; Mollusc_ins.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fruchtman
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100.0%;
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                                                                                                                                                                                                                                     Score 9; DB 1; Pred. No. 0.1
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Pred. No.
     PRT;
                                                                                                                                                                                                                                                                                                                                                7B9466A89CC569A8 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
     108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor cDNAs from temperate
                                                                                                                                                                                                                                                            DB 13;
o. 0.15;
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5. 0.15;
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                                                                                                                                                                                                                                        Indels
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  RESULT 22
Q800M7
ID Q800M
AC Q800M
DT 01-UC
DT 01-UC
DT 01-UC
DT ACANT
OC MOTON
OC NOBL
RN [1]
RN [1]
RN [1]
RN [1]
RN [1]
RD GO;
OC NOBL
RT SUDMI
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T bass species.";

T bass species.";

Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.

R EMBL; AF402672; AAO73857.1;

R GO; GO:0005576; C:extracellular; IEA.

R GO; GO:0005179; F:hormone activity; IEA.

R GO; GO:0005179; F:hormone activity; IEA.

R GO; GO:0007582; P:physiological processes; IEA.

InterPro; IFR004825; Ins/IGF/relax.

InterPro; IFR004834; Mollusc_ins.

Pfam; PF00049; Insulin; 1.

PRINTS; PR00277; INSULINB.

DR PRINTS; PR00277; INSULINB:

DR PRODOM; PD015667; Mollusc_ins; 1.

DR PRODOM; PD015667; Mollusc_ins; 1.

DR PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Frichtman S., Hawkins M.B., Borski R.J.;
"Cloning of IGF-I and the type I IGF receptor cDNI
bass species.";
bass species."

Submitted (UUL-2001) to the EMBL/GenBank/DDBJ date
EMBL; AF402671; AA073856.1;

GO; GO:0005576; C:exctracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
InterPro; IFR004825; Ins/IGF/relax.
InterPro; IFR004825; Ins/IGF/relax.
InterPro; IFR003234; Mollusc_ins.
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01.JUN-2003 (TrEMBLrel. 24, Created)
01.JUN-2003 (TrEMBLrel. 24, Last sequence update)
01.JUN-2003 (TrEMBLrel. 25, Last annotation update)
01.OCT-2003 (TrEMBLrel. 25, Last annotation update)
01.OCT-2003 (TrEMBLrel. 25, Last annotation update)
Insulin-like growth factor I (Fragment).
Morone chrysops (White bass).
Morone chrysops (White bass).
Enkaryota, Metazoa; (Dordata; Craniata; Vertebrata; Euteleostomi;
Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidei;
Moronidae; Morone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoide: Moronidae; Morone.
                                                                                                                                                                                                                                                                                                                                                                   Fruchtman S., Hawkins M.B., Borski R.J.; "Cloning of IGF-I and the type I IGF receptor cDNAs from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2003 (TrEMBLrel. 24, 0
01-JUN-2003 (TrEMBLrel. 24, 1
01-OCT-2003 (TrEMBLrel. 25, 1
Insulin-like growth factor I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00277; INSULINB. ProDom; PD015667; Mollusc_ins; SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=46260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Morone americana (White perch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00049; Insulin;
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9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RAQRHTDMP 100
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 13;
o. 0.15;
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RESULT CONTROL OF CONT
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Best Local S
Matches
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Best Local
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                                                                                                                     Q91161 PRELIMINARY; PRT;
Q91161;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last seq
01-UN-2003 (TrEMBLrel. 24, Last ann
Insulin-like growth factor I precurs
Oncorhynchus kisutch (Coho salmon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9N1S5;
Q9N1S5;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleos
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus
  SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00262; INSULIN; 1.
NON_TER 1 1
NON_TER 113 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00049; Insulin; SMART; SM00078; IlGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anim. Reprod. Sci. 64:65-75(2000).
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN
EMBL; AF152589; AAF73228.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=20532861; PubMed=11078967; Wagener A., Blottner S., Goritz F., "Detection of growth factors in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Cho:
Mammalia; Eutheria; Cet;
Cervidae; Odocoileinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Capreolus capreolus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Insulin-like
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GO:0005179; F:hormone activity; IEA.
GO:0007582; P:phystological processe
erPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P01344;
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                                                                                                                                                                                                                                                                                                                                                                                                  ECCFRSCDL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113
113 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     108
108 AA;
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0 (TrEMBLrel. 15,
3 (TrEMBLrel. 24,
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12987 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 9;
; Pred. No
                                                                                                                                                               Last sequence update)
Last annotation update)
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Last annotation updat
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0; Mismatches
                                                                                                                                                                                                         Created)
                                                                                                                                               precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A8269DDF56DA593C CRC64;
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testis
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o. 0.16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 13;
                                                                                                                                         (Fragment).
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Best Local S
Matches
EMBL; M81904; AAA18212.1; -.
HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insulin-like growth factor I precursor (Fragment).
Salmo salar (Atlantic salmon).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Salm
CBI_TaxID=8030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996
01-NOV-1996
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q91476;
Q91476;
                                                                                                                                                                                             MEDIINE=93024477; PubMed=1406698;
Duguay S.J., Park L.K., Samadpour M., Dickhoff W.W.;
"Nucleotide sequence and tissue distribution of three insu
growth factor I prohormones in salmon.";
Mol. Endocrinol. 6:1202-1210(1992).
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SUBCELLULAR LOCATION: TO THE INSULIN/IGF/RELAXIN FAMILY.
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CHAIN
NON TER
SEQUENCE
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MEDLINE=90190659; PubMed=2628735;
Cao Q.F. Duguay S.J., Plisetskaya E., Steiner D.F., Chan S.J.;
Cao Q.F. Duguay S.J. Plisetskaya E., Steiner D.F., Chan S.J.;
"Nucleotide sequence and growth hormone regulated expression of salmon
"nsulin-like growth factor I mRNA.";
Mol. Endocrinol. 3:2005-2010(1989).
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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MO1. Endocrinol. 6:1202-1210(1992)
-1- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Duguay S.J, Park L.K., Samadpour M., Dickhofi
"Nucleotide sequence and tissue distribution
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=93024477; PubMed=1406698;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30; GO:0005576; C:extracellular; IEA.
32; GO:0005179; P:hormone activity IEA.
30; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
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MM00078; IlGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116 AA;
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INSULIN-LIKE GROWTH FACTOR
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Search completed: March 3, 2004, 12:02:38 Tob time : 40 secs
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                                                                                                                                                                              SMART; SM00078; IIGF; 1.

PROSITE; PS00262; INSULIN; 1.

Signal.

NON TER 1 1

SIGNAL 1 18

CHAIN 19 88

INSULIN-LIKE GROWTH FACTOR I.

SEQUENCE 117 AA; 12867 MW; A97666EEEF526EAC CRC64;
                                                            92 RAORHIDMP 100
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Page 10

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Result
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Perfect score:
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Query
Match
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s auncus muri
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homo sapien
bost taurus
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4 gallus gall
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09jrd0 neiseria m
052759 pseudomonas
947237 gallus gall
013672 schizosacch
943387 methylophil
08zil6 yersinia pe
029026 archaeoglob
08xkg4 clostridium
P28940 equine herp
08ka24 buchnera ap
001367 bacillus su
P57456 buchnera ap
10941 cryphonectr
035640 mus musculu
P40231 schizosacch
08ran2 thermoanaer
P23703 rhizobacter
P23703 rhizobium 1
09a3g8 caulobacter
P33703 rhizobacter
08616 pseudomonas
09cjn6 pseteurella
058810 methanococc
09ujw3 homo sapien
p34124 dictyosacch
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065101
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P58829
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1 zea mays (m
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2 buchnera ap
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4 o cytochrom
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2 prototheca
7 feline sarc
9 homo sapien
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RESULT

ALIGNMENTS

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EMBL; M15650; AAA41214.1; J
EMBL; M15647; AAA41214.1; J
EMBL; M15648; AAA41214.1; J
EMBL; M15649; AAA41214.1; J
EMBL; M15649; CAA29480.1; A
EMBL; X06107; CAA29480.1; A
EMBL; X06107; CAA29480.1; A
EMBL; A27804; A27804
HSSP; P01343; 1GF1
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01-FEB-1991
10-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.

MEDLINE=89127259; PubMed=3221878;

MEDLINE=89127259; PubMed=3221878;

Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;

"Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit: heterogeneous transcripts are generated from two promoters by unit.
                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=89174609; PubMed=2538424;
Tamura K., Kobayashi M., Ishii Y., Tamura
Nakamura S., Niwa M., Zapf J.;
"Primary structure of rat insulin-like gro
biological activities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shimatsu A., Rotwein P.;
"Sequence of two rat insulin-like growth
within the 5' untranslated region.";
Nucleic Acids Res. 15:7196-7196(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shimatsu A., Rotwein P.; "Mosaic evolution of the sequence, and expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Bukaryota; Mecazoa; Chordata;
Mammalia, Eutheria; Rodentia;
NCBI_TaxID=10116;
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                                                                                                                                                              or send an email to license@isb-sib.ch).
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MEDLINE=88015572;
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MEDLINE=87222423; PubMed=3034909;
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                                                                                                                                                                                                                                                                                            IsoId=P08025-1; Sequence=External;
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                         Biol. Chem. 264:5616-5621(1989).
FUNCTION: The insulin-like growth fact are structurally and functionally relamuch higher growth promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                          Event=Alternative splicing; Named isoforms=2; Name=IGF-IB; IsoId=P08024-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                             Name=IGF-IA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RAT
IPR004825;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17, Last sequence update)
42, Last annotation update)
th factor IB precursor (IGF-IB)
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ALT_SEQ.
ALT_SEQ.
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Best Local S
Matches 40
                                                                                                                                                                                                                 MEDLINE=87040760; PubMed=3774549;
Bell G.I., Stempien M.M., Fong N.M., Rall L.B.;
Bell G.I., Stempien M.M., Fong N.M., Rall L.B.;
Bequences of liver cDNas encoding two different mouse insul
growth factor I precursors.";
Nucleic Acids Res. 14:7873-7882(1986)
Negroup Top The insulin-like growth factors, isolated from are structurally and functionally related to insulin but much higher growth-promoting activity.

-I- SUBCELLULAR LOCATION: Secreted.
-I- ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CONFLICT
CONFLICT
         EMBL; X04480; CAA28168
PIR; A25540; A25540.
HSSP; P01343; 1GF1.
                                                       This SWISS-PROT entry is copyright. It is produced through a obetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and foentities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
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13-AUG-1987
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                                                                                                                                                                                                                                                                                                                                                         IISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                            IGF1 OR IGF-1
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10-OCT-2003
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                                                                                                                                                        IsoId=P05018-1; Sequence=External;
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                          Name=IGF-IA;
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"; Sw00078; IIGF; 1.
"E; PS0026"
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                                                                                                                                                                                             IsoId=P05017-1;
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(Rel. 42, Last annotation updat
(Rel. 42, Tast annotation (IC
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PEPTIDE.
BY SIMILARITY.
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0; Mismatches
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precursor (IGF-IA)
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A Strausberg R.D., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Schenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

By Distchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Distchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

Pahey J., Helton E., Kettenan M., Madan A., Rodrigues S., Sanchez A.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Butterfield Y.S.N., Krzywinski M.I., Schmutz J., Myers R.M.,

"Generation and initial analysis of more than 15,000 full-length

Thuman and mouse cDNA sequences.";
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Bell G.I., Stempien M.M., Fong N.M.,
"Sequences of liver cDNAs encoding tw
growth factor I precursors.";
Nucleic Acids Res. 14:7873-7882(1986)
                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22388257;
                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=FVB/N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
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SM00078; IIGF; 1.
E; PS00262; INSULIN;
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Rodentia;

    Last sequence update)
    Last annotation update)
    factor IB precursor (IGF-IB) (Somatomedin).

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CM, 1054BBCAC72DC2D7 CRC64;
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Pred. No.
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Sciurognathi; Muridae;
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two different
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Murinae; Mus
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Matches 31
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P08025;
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10-CCT-2003 (Rel. 42, Last ann
Insulin-like growth factor IA
IGF1 OR IGF-1.
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PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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 Shimatsu A., Rotwein P.; "Mosaic evolution of the insulin-like growth factors. Organization, sequence, and expression of the rat insulin-like growth factor I
                               SEQUENCE FROM N.A.
MEDLINE=87222423; PubMed=3034909;
                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                  Rattus norvegicus (Rat)
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Insulin
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SIMILARITY: Belongs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , MGI:96432; IGfl.
GO:0010001; P:glial cell differentiation;
GO:0007399; P:neurogenesis; IMP.
erPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: The insulin-like growth factors, is are structurally and functionally related to much higher growth-promoting activity. SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=IGF-IA;
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31; Conservative
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                                                                                                                                                                              STANDARD;
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                                                                             Chordata;
Rodentia;
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gs to the insulin family.
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annotation update)
IA precursor (IGF-
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Pred. No. 1.6
0; Mismatches
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                                                                            Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Plasma; Alternative splicing; Signal
                                                                                                                                                                              153
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                                                                                                                        (IGF-IA)
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                                                                              Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=89127259; PubMed=3221878;
Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith "Structure of the rat insulin-like growth factor II transc unit: heterogeneous transcripts are generated from two prounds of multiple polyadenylation sites and differential riversely and the property of the polyadenylation sites and differential riversely and riversely and riversely and riversely and
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Nakamura S., Niwa M., Zapf J.;
"Primary structure of rat insulin-like
biological activities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=89174609; PubMed=2538424;
Tamura K., Kobayashi M., Ishii Y., Tamura
Nakamura S., Niwa M., Zapf J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 46-153 FROM N.A. MEDLINE=8726437; PubMed=3595538; MEDLINE=8726437; PubMed=3595538; Murphy L.J., Bell G.I., Duckworth M.L., Friesen H.G.; "Identification, characterization, and regulation of a rat complementary deoxyribonucleic acid which encodes insulin-like complementary deoxyribonucleic acid which encodes insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acid
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Casella S.J., Smith E.P., van Wyk J.J., Joseph D.R., Hynes M.A.,
Hoyt E.C., Lund P.K.;
"Isolation of rat testis cDNAs encoding an insulin-like growth factor
                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
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Kato H., Okoshi A., Miura Y., Noguchi T.;
"A new cDNA clone relating to larger molecular species of insulin-like growth factor-I mRNA.";
Agric. Biol. Chem. 54:1599-1601(1990).
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DNA 6:325-330(1987)
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Biol.
                 L; X06043; CAA29436.1;
M15645; AAA41215.1;
L; M15646; AAA41215.1;
L; M15649; AAA41215.1;
L; M17314; AAA41227.1;
L; M17314; AAA4127.1;
L; M17315; AAA41386.1;
L; M15481; AAA41387.1;
B27804; B27804.
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SIMILARITY: Belongs to the insulin family.
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Event=Alternative splicing; Named isoforms=2;
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                     B27804;
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Endocrinol.
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HSSP; P01343; 1951.
Interpro; IPRO04825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00276; INSULINA.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
Insulin family; Growth factor; Plasm:
NON TER
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Best Local :
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Q28933;
16-OCT-2001 (
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Insulin-like)
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PROSITE;
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"Partial sequence of a IGF-I cDNA in the musk shrew, Suncus n Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: The insulin-like growth factors, isolated from are structurally and functionally related to insulin but much higher growth-promoting activity.

-I- SUBCELLULAR LOCATION: Secreted.

-I- SUBCELLULAR DECAPTION: Secreted.
                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Suncus murinus (House shrew) (Musk shrew).
Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Insectivora, Soricidae, Crocidurinae, Suncus.
NCBI_TaxID=9378;
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DOMAIN
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PROPEP
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Pfam; PF00049; Insulin;
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llarity 100.0%;
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                                  Plasma
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or (IGF-I)
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RESULT 6
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Matches 26
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InterPro; IPR004925; Ins/IGF
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1994 (Rel. 28
01-FEB-1994 (Rel. 28
10-OCT-2003 (Rel. 42
Insulin-like growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=93366192; PubMed=8359700;
Delafontaine P., Lou H., Harrison D.G.,
"Sequence of a cDNA encoding dog insuli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; (Mammalia; Eutheria; Carnivora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Fragment)
                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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PIR; PN0622; PN0622.
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                                                                                                                                                                PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     much higher growth-promoting activity. SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CANFA
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familiaris (Dog).
yota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
yota; Metazoa; Carnivora; Fissipedia; Canidae; Canis.
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                                                                                                                                           PS00262; INSULIN; 1. amily; Growth factor;
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42, Last annotation update)
th factor I precursor (IGF-I)
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3Y SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bernstein
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growth fac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U28070; AAA68952.1; -.
HSSP; P01343; 1GF1.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
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MEDLINE=97013467; PubMed=8860303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Equus caballus (Horse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
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Insulin-like
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"Sequence of a cDNA encoding guinea pig IGF-I.";
"Nucleic Acids Res. 18:4275-4275(1990).
-i-FUNCTION: The insulin-like growth factors, isolated factor structurally and functionally related to insulin are structurally and functionally related to insulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10141;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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th factor I precursor (IGF-I)
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Q95272; C18846;

01-NOV-1997 (Rel.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION: The insulin-like growth factors, is:
are structurally and functionally related to:
much higher growth-promotting activity.
-!- SUBCELLULAR LOCATION: Secreted.
-!- ALTERNATIVE PRODUCTS:
Event-Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=ZIKA; TIBBUB-L...., Mueller M.; Flekna G., Brem G., Mueller M.; Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases. Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases. Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
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Submitted (NOV-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oryctolagus cuniculus (Rabbit).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOY-1997 (Rel. 35, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation updat
Insulin-like growth factor I precursor (IGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RABIT
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HSSP; P01343; 1GF1.
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PIR; S12825; S12825.
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Pfam; PF00049; InsuLin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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MEDLINE=94128209; PubMed=8297476;
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"Porcine insulin-like
deoxyribonucleic acid
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SIMILARITY: Belongs to the insulin family.
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Insulin-like growth fac
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Rotwein P., Pollock K.M., Didder D.K., Krivi G.G.;
"Organization and sequence of the human insulin-like growth gene. Alternative RNA processing produces two insulin-like factor I precursor peptides.";
J. Biol. Chem. 261:4828-4832(1986).
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Gabbay K.H., Nussbaum A.L., Sussenbach J.S., v
"Sequence of cDNA encoding human insulin-like
precursor.";
TISSUE-Brain;
MEDLINE-92186627; PubMed=1372070;
~~~hard Nordqvist A.C., Stahlbom
                                                                                                                                                                     de Pagter-Holthuizen P., van Schaik F.M.A., Verduijn
van Ommen G.J.B., Bouma B.N., Jansen M., Sussenbach '
"Organization of the human genes for insulin-like gro
                                                                                                                                                                                                                                  MEDLINE=86108910; PubMed=2935423; le Bouc Y., Dreyer D., Jaeger F., "Complete characterization of the isolated from a newly constructed FEBS Lett. 196:108-112(1986).
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                       Steenbergh P.H., Sussenbach J.S.;
                                                                                                                                                            "Organization and II.";
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MEDLINE=86108910;
                                                                                                                                                                                                                                                                                                          Nature 306:609-611(1983).
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                                                                  "Complete nucleotide sequence IGF-I mRNA.";
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Koonen-Reemst A.M.C.
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human IGF-I nucleotide sequence
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                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-89207850; pubMed=3242681;

Raschdorf F., Dahinden R., Maerki W., Richter W.J., Merryweather J.P.

Raschdorf F., Dahinden R., Maerki W., Richter W.J., Merryweather J.P.

"Location of disulphide bonds in human insulin-like growth factors (IGFs) synthesized by recombinant DNA technology.";

Biomed. Environ. Mass Spectrom. 16:3-8(1988).

-I-FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

-I-SUBCELIULIAR LOCATION: Secreted.

-I-SUBCELIULIAR LOCATION: Secreted.

-I-ALTERNATIVE PRODUCTS:

-I-ALTERNATIVE SPRODUCTS:

Name-TIO-IA.
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Yasuda T., Kobayashi Y.;
"1H-NMR assignment and secondary structure
growth factor-I (IGF-I) in solution.";
J. Biochem. 111:529-536(1992)
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"Solution structure of human insulin-like growth factor 1: a nuclear magnetic resonance and restrained molecular dynamics study.";
Biochemistry 30:5484-5491(1991).
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Blundell T.L., Bedarkar S., Humbel R.E.;
"Tertiary structures, receptor binding, and antigenicity
insulinlike growth factors.";
Fed. Proc. 42:2592-2597(1983).
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MEDLINE=84295593; PubMed=6382022;

Dull T.J., Gray A., Hayflick J.S., Ullrich A.;

"Insulin-like growth factor II precursor gene organization relation to insulin gene family.";

Nature 310:777-781(1984).
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[7]
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MEDLINE=78130171; PubMed=632300;
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Yasuda T., Kobayash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=92316903; PubMed=1319992; Sato A., Nishimura S., Ohkubo T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rinderknecht
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRUCTURE BY NMR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rinderknecht E., Humbel R.E.;
"The amino acid sequence of human insulin-like its structural homology with proinsulin.";
J. Biol. Chem. 253:2769-2776(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Characterization of two cDNAs encoding insulin-like growth factor 1 (IGF-1) in the human fetal brain."; Brain Res. Mol. Brain Res. 12:275-277(1992).
                                                                                                                                                                                                                                                                                     isoId=P05019-1; Sequence=External;
-!- SIMILARITY: Belongs to the insulin family.
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                 ; AAA52538.1; JOINED.; AAA52538.1; JOINED.; AAA52538.1; JOINED.; CAA24998.1; CAA24998.1; CAA27250.1; ALT_SEQ.
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DT 01-AVV-1991
DT 10-CCT-2003
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Insulin family; Growth factor; Plasma; 3D-structure;
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                                                                                                                                                                                                                                                                                    Alternative
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30; GO:0005280; F:cell mortlity, TAS.
30; GO:0005260; P:DNA replication; TAS.
30; GO:0009441; P:glycolate metabolism; TAS.
30; GO:000941; P:muscle development; TAS.
30; GO:0007517; P:muscle development; TAS.
30; GO:0007265; P:RAS grotein Rignal transduction; TAS.
30; GO:0007265; P:RAS grotein Rignal transduction; TAS.
30; GO:0007165; P:signal transduction; TAS.
30; GO:0001501; P:skeletal development; TAS.
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LL; X03421; CAA27154.1

LL; X03422; CAA27154.1

LL; X57025; CAA40342.1

LL; X5773; CAA40092.1

LL; X56773; CAA40092.1
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265850;
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15-OCT-94:
15-APR-93:
15-APR-93:
15-APR-93:
23-PEB-99:
02-OCT-02:
02-OCT-02:
02-UIL-02:
25-UIL-02:
16-MAY-02:
16-MAY-02:
16-MAY-01:
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tion; TAS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Insulin-like growth factors I and II in serum. Purification, primary structures, cross-reactivities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=95172127; PubMed=7867698; Schmidt A., Einspanier R., Amselgruber W., "Expression of insulin-like growth factor oviduct during the cestrous cycle."; Exp. Clin. Endocrinol. 102:364-369(1994).
                                                                                                                                                                                                                           InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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Francis G.L., Upton F.M., Ballard F.J.,
"Insulin-like growth factors 1 and 2 in
and biological activities compared with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=86085881; Pu
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MEDLINE=90175014; PubMed=2308858;

MEDLINE=90175014; PubMed=2308858;

Fotsis T., Murphy C., Gannon F.;

"Nucleotide sequence of the bovine insulin-like growth factor 1

(IGP-1) and its IGF-1A precursor.";

Nucleic Acids Res. 18:676-676(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
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IGF1.
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SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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le colostrum. Sequences
of a potent truncated
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cora; Bovoidea,
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EMBL; D26119; BAB7752;
EMBL; D261116; BAB7752;
EMBL; D26117; BAB7752;
EMBL; D261117; BAB7752;
EMBL; D26118; BAB7752;
PIR; JC2483; JC2483.
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01-0CT-1996 (Rel. 34, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation updat
Insulin-like growth factor I precursor (IGF
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Insulin f
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STRAIN=Shiba; TISSUE=Liver;
MEDLINE=95290780; PubMed=7772848;
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Pfam; PF00049; Insulin; 1.
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Utsumi K.;
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NCBI_TaxID=9925;
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
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SUBCELLULAR LOCATION: Secreted.
TISSUB SPECIFICITY: Expressed in all tissues
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SM00078; IIGF; 1.
E; PS00262; INSULIN;
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BAB77524.1; ALT SEQ.

BAB77524.1; JOINED.

BAB77524.1; JOINED.

BAB77524.1; JOINED.
                                                                                                                                                                                                                                                                   Insulin; 1.
7; INSULINB.
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                                                                                                                                                                                                           Growth
  49
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154
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100.0%;
                                                                                                                                                                                                           factor;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 26; Pred. No.
B.
C.
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E PEPTIDE.
EY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                            BY SIMILARITY INSULIN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIFICITY
                                                                                                                                                                                                         Plasma; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sakai H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1; L
3.5e-20;
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                                                                                                                                                FACTOR
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n but have a
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| skeletal
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5 outstation -
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P10763;
01-JUL-1989 (Rel.
01-FEB-1991 (Rel.
10-OCT-2003 (Rel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-93221682; PubMed-8466647; Ohlsen S.M., Dean D.M., Wong E.A.; "Characterization of multiple transcription ovine insulin-like growth factor-I gene and three alternatively spliced transcripts."; DNA Cell Biol. 12:243-251(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota;
Mammalia; E
Bovidae; Ca
Hey A.W., Browne C.A., Simpson R.J., The "Simultaneous isolation of insulin-like adult sheep serum.";
                                                                                                                                                                                                 SEQUENCE OF 50-119.
MEDLINE=89136887; PubMed=2537174;
Francis G.L., McNeil K.A., Wallace
"Sheep insulin-like growth factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-91197361; PubMed=2015053; Dickson M.C., Saunders J.C., Gilmour R.S.; Urbe ovine insulin-like growth factor-I genexpression and identification of a putative J. Mol. Endocrinol. 6:17-31(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=90126234; PubMed=2575490; Wong E.A., Ohlsen S.M., Godfredso: "Cloning of ovine insulin-like grinthe mRNA population."; DNA 8:649-657(1989).
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 55-135
STRAIN=Coopworth; T
MEDLINE=93250051; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bovidae; Caprinae;
NCBI_TaxID=9940;
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                                                                                                                                                                                                                                                                                                     STRAIN=Coopworth; TISSUE=Liver;
MEDLINE=9325051; PubMed=8485157;
Denmær J., Hill D.F., Petersen G.B.;
Characterization of two sheep insulin-like
with different 5'-untranslated regions.";
Blochim. Biophys. Acta 1173:79-80(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :SSUE=Liver;
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26; Conser
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                                                                                                                                                                124:1173-1183(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11, Created)
17, Last sequence update)
42, Last annotation updat
42, Last annotation (IGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
17082 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   N.A.
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                                                                                                                                                                                                          J.C.,
I and
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                                                                                    Thorburn
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thes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene: characterization,
tive promoter.";
                                                            growth
                                                                                                                                                                                                       Ballard F.J., II: sequences,
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                                                                                    G.D.;
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DISULFID
VARSPLIC
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SIGNAL
                                                                                                                                                                                                                                                                                         EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collable between the Swiss Institute of Bioinformatics and the EMBL outset the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                      VARSPLIC
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                                                                                                                             DOMAIN
                                                                                                                                                                                           PRINTS; PR00277; INSUI
SMART; SM00078; IlGF;
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                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: The insulin-like growth factors, is are structurally and functionally related to much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
Event-Alternative splicing; Named isoforms=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=C
                                                                                                                                                                                                           PF00049; Insulin;
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                                                                                                                                                                            family;
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MGKISSLPTQLFKCCFCDFLK -> M

180form C).

/FTId=VSP 002706.

Missing (In isoform A).

/FTId=VSP 002707.

A -> V (IN REF. 4).

A -> V (IN REF. 4).
Score 26; DB; Pred. No. 3.5
0
                                                                                                                                                    INSULIN-LIKE GROWTH FACTOR
                                                                                                                                                                           Plasma; Signal; Alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                               moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
       DB 1; I
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              Length 154;
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13-AUG-1987 (Rel. 05.
10-OCT-2003 (Rel. 42.
Insulin-like growth:
IGF1 OR IBP1.
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IGP1 OR IBP1.
Homo sapiens (Human).
Homo sapiens (Homan).
Horota; Metazoa; Chordata;
Horota; Primates;
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Rotwein P., Pollock K.M., Didier D.K., Krivi G.G.;
"Organization and sequence of the human insulin-like growth factor gene. Alternative RNA processing produces two insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Proc. Natl. Acad.
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Chem. 261:4828-4832(1986).
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th factor IB precursor (IGF-
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Catarrhini; Hominidae;
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SEQUENCE OF 22-50 FROM N.A.
MEDLINE=84295593; PubMed=6382022;
Dull T.J., Gray A., Hayflick J.S., Ullric
"Insulin-like growth factor II precursor
relation to insulin gene family.";
Nature 310:777-781(1984). "Organization and II."; MEDIJINE=86108862; PubMed=3002851; de Pagter-Holthuizen P., van Schaik F.M.A., Verduijn G.M. van Ommen G.J.B., Bouma B.N., Jansen M., Sussenbach J.S.; "Organization of the human genes for insulin-like growth SEQUENCE FROM N.A. MEDLINE=86108862; Lett. 195:179-184(1986). Ullrich gene organization Α., G.M., factors

SEQUENCE OF 49-118.

MEDLINE=78130171; PubMed=632300;

Rinderknecht E., Humbel R.E.;

"The amino acid sequence of human insulin-like its structural homology with proinsulin.";

J. Biol. Chem. 253:2769-2776(1978). growth factor

MEDLINE=83210259; Blundell T.L., Bec STRUCTURE BY NMR. Blundell T.L., Bedarkar S., Humbel R.E., "Tertiary structures, receptor binding, insulinlike growth factors."; Fed. Proc. 42:2592-2597(1983). MODELING. 59; PubMed=6189745; Bedarkar S., Humbel and antigenicity

Sato A., Yasuda T. STRUCTURE BY NMR.
MEDLINE=92316903; PubMed=1319992;
Sato A., Nishimura S., Ohkubo T., MBDLINE=91242464; PubMed=2036417; Cooke R.M., Harvey T.S., Campbell I.D.; Cooke R.M. structure of human insulin-like magnetic resonance and restrained molecula picchemistry 30:5484-5491(1991). Kobayashi Y.; nolecular dynam Kyogoku . Y., dynamics Koyama factor . ა study nuclear 3

growth J. Bion This SWISS-PROT entry is copyright. It is produced through a collable between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contentiations as the content is the modified and this statement is not removed. Usage by and for content is not removed. Cargill M., Altshuler Shaw N., Lane C.R., Li MEDLINE-89207850; PubMed=3242681; Raschdorf F., Dahinden R., Maerki W., R "Location of disulphide bonds in human (IGFs) synthesized by recombinant DNA t Biomed. Environ. Mass Spectrom. 16:3-8(Friedland Cargill M., Shaw N., La VARIANT ASP-187. MEDLINE=99318093; DISULFIDE "IH-NMR assignment and secondary structure growth factor-I (IGF-I) in solution.";
J. Biochem. 111:529-536(1992). "Characterization of _ander E.S.; Lander E.S.; human are structurally and functionally related (
much higher growth-promoting activity.
SUSCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
Event=Alternative SIMILARITY: Belongs Name=IGF-IB; Event=Alternative IsoId=P01343-1; IBOId=P05019-1; Lane genes."; st. 22:231-238(1999) L., Altshuler D., ine C.R., Lim E.I 23:373-373(1999) Rolfe PubMed=10391209;
uler D., Ireland J., Sklar P., Ardlie K.,
. Lim E.P., Kalyanaraman N., Nemesh J., 2
fe A., Warrington J., Lipshutz R., Daley (single-nucleotide recombinant DNA technology."; Spectrom. 16:3-8(1988). Sequence=External; Sequence=Displayed; splicing; Named isoforms=2; ö ., Ireland J., Sklar P., Ardlie K., E.P., Kalyanaraman N., Nemesh J., Warrington J., Lipshutz R., Daley the insulin Richter W.J., n insulin-like moved. Usage by and for (See http://www.isb-sib family. polymorphisms , isolated to insulin insulin Merryweather growth factor in from n but coding regions ., Patil N., Ziaugra L., G.Q., Ziaugra G.Q., factors plasma, have a ö မ္မ

entities requires a license agreement (S or send an email to license@isb-sib.ch). AAA52537.1; a collaboration ch/announce/

R Genew; HCNC:5464; IGF1.

R MIM; 147440; -.

R MIM; 265850; -.

R GO; GO:0005159; F:insulin-like growth factor receptor binding; GO:0005160; F:peptide hormone; TAS.

GO; GO:0005180; F:peptide hormone; TAS.

GO; GO:0006280; P:DAN replication; TAS.

R GO; GO:0006280; P:DAN replication; TAS.

R GO; GO:0000441; P:glycolate metabolism; TAS.

R GO; GO:0007517; P:muscle development; TAS.

R GO; GO:0008284; P:positive regulation of cell proliferation; TAS.

R GO; GO:0008285; P:RAS protein signal transduction; TAS.

R GO; GO:0007165; P:signal transduction; TAS. EMBL; M14155; AAA52537 EMBL; M1453; AAA52537 EMBL; M14154; AAA52537 EMBL; M14154; AAA52537 EMBL; M1568; AAA52537 EMBL; X03563; CAA27250 EMBL; X03420; CAA27152 EMBL; X03421; CAA27153 EMBL; X03422; CAA27153 EMBL; X03422; CAA27154 PIR; A01611; IGHU1B. PDB; 1GF1; 15-APR-93 PDB; 3GF1; 15-APR-93 PDB; 1GF1; 15-APR-93 PDB; 1GF1; 15-APR-93 PDB; 1GF1; 15-APR-93 PDB; 1GF1; 15-APR-93 ; 15-APR-93. ; 18-MAY-99. NC:5464; IGF1. AAA52539.1; CAA27250.1; CAA27152.1; CAA27153.1; CAA27154.1; ; AAA52537.1; ; AAA52537.1; ; AAA52537.1; JOINED. JOINED. ALT_SEQ. receptor binding;

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RESULT 16
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IGF1_COTJA

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                                                                                                                           Japanese quail (Coturnix coturnix japonica): changes and development or after estrogen administration."; Comp. Biochem. Physiol. 109C:191-204(1994).

-i- FUNCTION: The insulin-like growth factors, isolat are structurally and functionally related to insu
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Noguchi T.
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Insulin family; Growth factor;
Alternative splicing; Signal;
 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no resti
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Archosauria; Aves; Neognathae; Galliformes; Phasiani
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InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
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                                                                    much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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growth factor I precursor (IGF-I)
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Rotwein P., Kajimoto Y.;
Rotwein P., Kajimoto Y.;
"Structure of the chicken insulin-like growth factor
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                                                                                                                  Ballard F.J., Johnson R.J.,
McMurtry J.P., Wallace J.C.
"Chicken insulin-like growtl
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HSSP; P01343; 1GF1.
                                                                                        radicimmuncassay, and
                                                                                                                                                                     MEDLINE=91106695; PubMed=2272467;
Ballard F.J., Johnson R.J., Owens
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TS; PR00277; INSULINB.
T; SM00078; ILGF; 1.
ITE; PS00262; INSULIN;
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Chem. 266:9724-9731(1991)
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a growth factor I precursor (IGF-I)
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Neognathae; Galliformes; Phasianidae; Phasianinae;
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01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
01-AUG-1990 (Rel. 42, Last annotation update)
10-OCT-2003 (Rel. 42, Last annotation update)
Insulin-like growth factor I precursor (IGF-I)
Xenopus laevis (African clawed frog).
Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Verteb;
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                               "Evolution of insulin-like growth factor I (IGF-I): struce expression of an IGF-I precursor from Xenopus laevis."; Mol. Endocrinol. 4:217-226(1990).

-i- FUNCTION: The insulin-like growth factors, isolated fare structurally and functionally related to insulin much higher growth-promoting activity.

-i- SUBCELLULAR LOCATION: Secreted.

-i- SIMILARITY: Belongs to the insulin family.
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                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=90231335;
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SMART; SM00078; IlGF; 1.
PROSITE; PS00262; INSULIN;
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Pfam; PF00049; Insulin; 1.
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EMBL; M74176; AAA48829.1; -.
PIR; A41399; A41399.
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                                                                                                                                     Kajimoto Y.,
                                                                                                                                                                                                   Xenopodinae;
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SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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SWISS-PROT entry is copyright. It is produced through a collaboration -een the Swiss Institute of Bioinformatics and the EMBL outstation -
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01-FEB-1994
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fetal development.
-: SUBCELLULAR LOCATION: Secreted.
-:- SIMILARITY: Belongs to the insu
HSSP; P01344; 1GF2.
InterPro; IPR004825; Ins/IGF/relax
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                         Dawe S.R., Francis G.L., McNamara P.J., Wallace "Purification, partial sequences and properties usualin-like growth factors.";
J. Endocrinol. 117:173-181(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 1-35,
MEDLINE=88244560; PubMed=3379351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kallincos N.C., Wallace J.C., Francis G.L., Ballard F.J.; "Chemical and biological characterization of chicken insulin-like growth factor-II.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=90132351;
Kallincos N.C., W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M29857; AAA70330.1; -. PIR; A36079; A36079.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00049; Insulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR004825; Ins/IGF/relax.
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                                                                                                                                                                                   Indocrinol. 117:173-181(1988).
FUNCTION: The insulin-like growth factors pactivity. In vitro, they are potent mitogen in the pactivity in the pactor of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHICK
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(Rel. 28, Last sequence update)
(Rel. 42, Last annotation update)
e growth factor II (IGF-II).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
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  (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Signal
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of chicken
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Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
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PROSITE; PS00262; INSULIN; 1.
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                                                                                                                                                                                                                                                                                                                                   This
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MEDLINE-93246007; PubMed=1301379;
Levinovitz A., Norstedt G., van d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                              use by non-profit institutions as lon modified and this statement is not removeentities requires a license agreement (so or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                            the
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Insulin family; Mitogen; Growth
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                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: Secreted.

DEVELOPMENTAL STAGE: EXPRESSED PREDOMINANTLY AT LOWER LEVELS IN ADULT.

SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cell Endocrinol. 89:105-110(1992).
FUNCTION: The insulin-like growth factors possess activity. In vitro, they are potent mitogens for capture of the property 
                                                                                                                                                                                                                                                                                          European
                                                                                                                                                                                                                                                     ewiss-prot entry is copyright. It is produced through a collab een the Swiss Institute of Bioinformatics and the EMRI outst European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in fied and this statement is not removed. Usage by and for com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44
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growth factor II precursor (IG
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    Growth factor; Signal.
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Hystricognathi; Caviidae;
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cultured cells.
ay play a role in
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             DOMAIN
DOMAIN
                                                                                                EMBL; S63459; AAB27392.2;
HSSP; P01344; 1GF2.
InterPro; IPR004825; Ins/1
Pfam; PF00049; Insulin; 1.
                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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P41694;
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                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota;
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SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                      rUNUTION: The insulin-like growth factors possess growth-promoting activity. In vitro, they are potent mitogens for cultured cells. IGF-II is influenced by placental lactogen and may play a role in fetal development.
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SM00078; IlGF; 1.
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(Rel. 32, Last sequence update)
(Rel. 42, Last annotation update)
growth factor II precursor (IGF-II)
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n; Growth factor; Signal.

BY SIMILARITY.

INSULIN-LIKE GROWTH FACTOR II

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3Y SIMILARITY.
3Y SIMILARITY.
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RESULT 22
IGF2_BOVIN
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MEDLINE=90147754; PubMe
Li Q., Blacher R., Esci
"A heparin-binding ery
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"Arvine serum has the N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [2]
SEQUENCE OF 6-62 FROM N.A.
MEDLINE=93083057; PubMed=1280544;
Common T. F.. Mazza L., Palfree R.G.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=90356421; PubMed=2388846;
Brown W.M., Dziegielewska K.M., Foreman R.C., Sau
Brown P.M., Dziegielewska M.M., Foreman R.C., Sau
"The nucleotide and deduced amino acid sequences
growth factor II cDNAs from adult bovine and feta
Nucleic Acids Res. 18:4614-4614(1990).
                   Biochem.
                                    bovine serum has factor II.";
                                                                                                                                                                                                MEDLINE=88268820; PubMed=3390164;
Francis G.L., Upton F.M., Ballard F
"Insulin-like growth factors 1 and
and biological activities compared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
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TION: The
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Esch F., Congote L.F.;
erythroid cell stimulating factor from
'- W Ferminal sequence of insulin-like
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Cetartiodactyla;
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actyla; Ruminantia; Pecora;
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SEQUENCE FROM N.A.
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MEDLINE=90190659; PubMed=2628735;
Cao Q.-P., Duguay S.J., Plisetakaya E.M., Steiner
"Nucleotide sequence and growth hormone-regulated
salmon insulin-like growth factor I mRNA.";
"ndocrinol. 3:2005-2010(1989).
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Pfam; PF00049; InsuLin; 1.
PRINTS; PR00277; INSULINB.
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PROSITE; PS00262; INSULIN; 1.
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-!- SUBCELLULAR LOCATION: S
-!- SIMILARITY: Belongs to
                Moriyama S., Duguay
Plisetskaya E.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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HSSP; P01344; 1GF2
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EMBL; X53867;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                   MEDLINE=94062830;
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d by placental lactogen and may play a
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-> S (IN REF. 3).
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Best Local
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[GF1 ONCMY ONCMY STANDARD; PRT; 176 AA.

[Q02815;
[Q02815]
[O1-FEB-1995 (Rel. 31, Last sequence update)
[O1-FEB-1995 (Rel. 42, Last annotation update)
[O1-FEB-1995 (Rel. 31, Created update)
[O1-FEB-1995 (Rel. 31, Created update)
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                                                                                                                                                                                                                                                                                                         Shamblott M.J., Chen T.T.; "Identification of a second insulin-like growth factor "Identification of a second insulin-like growth factor % \left( 1\right) =\left\{ 1\right\} =\left
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                                                                                                                                                                                                                                                                      species."
                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=93028377;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=8022;
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much higher growth-promoting SUBCELLULAR LOCATION: Secre SIMILARITY: Belongs to the
                                                                                                                                     C. Natl. Acad. Sci. U.S.A. 89:8913-
FUNCTION: The insulin-like growth
are structurally and functionally
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FUNCTION: The insulin-like growth factors, is are structurally and functionally related to much higher growth-promoting activity.

SUBCELLULAR LOCATION: Secreted.
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hen T.T.;
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                                                                                                                                     factors, is related to
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o. 0.032;
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P10764;
                                           MEDLINE=90356421; PubMed=2388846;
Brown W.M., Dziegielewska K.M., Foreman R.C.,
"The nucleotide and deduced amino acid sequen
growth factor II cDNAs from adult bovine and
Nucleic Acids Res. 18:4614-4614(1990).
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SEQUENCE FROM N.A. STRAIN=Coopworth; MEDLINE=93250051;
                                                                                                                                    MEDLINE=89345107; PubMed=2762134;
O'Mahoney J.V., Adams T.E.;
"Nucleotide sequence of an ovine insulin-like
Nucleic Acids Res. 17:5392-5392(1989).
                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
Bovidae; Caprinae;
                                                                                                                                                                                                                                                                                  01-UII-1989 (Rel. 11, Created)
01-CT-1989 (Rel. 12, Last sequence update)
10-CCT-2003 (Rel. 42, Last annotation update)
Timulin-like growth factor II precursor (IGF-II)
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9; Conser
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                                                                                                                                                                                                                                                                                                                                             179
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                                                       n R.C., Saunders N.R.;
sequences of insulin-like
ne and fetal sheep liver."
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PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN;
INsulin family; Mitogen; G
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Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
"Simultaneous isolation of insulin-like growth factors I and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Francis G.L., McNeil K.A., Wallace J.C., "Sheep insulin-like growth factors I and assays.";
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HSSP; P01344; IGF2.
InterPro; IPR004825; Ins/IGF/relax.
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MEDLINE=89136887; PubMed=2537174;
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Submitted (SEP-1990) to the EMBL/GenBank/DDBJ
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insulin-like growth factor I precursor form 2 - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change C;Accession: B40912 R;Roberts Jr., C.T. Tack. C R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; Mol. Endocrinol. 1, 243-248, 1987 A;Title: Molecular cloning of rat insulin-like growth actissues. insulin-like growth factor IB precursor - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 16-Jul-1999 C;Accession: A26859 RESULT 3 A26859 A;Molecule type: mRNA A;Residues: 1-133 <ROB> A;Cross-references: GB:M15480; NID:g204749; PIDN:AAA41385.1; PID:g204750 C;Superfamily: insulin R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; LeRoith, D. Mol. Endocrinol. 1, 243-248, 1987 A;Title: Molecular cloning of rat insulin-like growth factor I complementary deoxyribonuc tissues. Insulin-like growth factor I precursor form 1 - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: A40912 R;Shimatsu, A.; Rotwein, P. Nucleic Acids Res. 15, 7196, 1987 N;Title: Sequence of two rat insu A;Title: Sequence of two ratinsu A; Reference number: A26859; A; Accession: A26859 밁 δ A;Reference number: A40912; MUID:88288198; PMID:3453891 A;Accession: B40912 Вb Š В Š A;Reference number: A40912; MUID:88288198; PMID:3453891 A;Accession: A40912 A;Residues: I-127 <ROB> A;Cross-references: GB:M15481; NID:g204753; FIDN:AAA41387.1; A; Molecule type: mRNA A;Status: preliminary A; Status: preliminary Matches Superfamily: insulin Query Match Matches госат 99 υ S 81; σ 9 56; Conser Similarity YGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQK 108 YGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQK STHKKRKLORRRKGSTLEEHK 133 STHKKRKLQRRRKGSTLEEHK 86 YGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQKSQPL YGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKFTKSARSIRAQRHTDMPKTQKSQFL mRNA 94.2%; So llarity 100.0%; I Conservative 0; Conservative 65.1%; t insulin-like growth factor I mRNAs MUID:88015572; PMID:3658684 0 Score 81; DB 2; Le Pred. No. 4.1e-75; 0; Mismatches 0; Score 56; DB 2; Lo Pred. No. 1.2e-49; 0; Mismatches 0; insulin-like growth factor I complementary deoxyribon ALIGNMENTS Length 127 Length 133, Indels Indels PID:g204754 differing within LeRoith, D. 16-Jul-1999 0 0; Gaps Gaps 5 112 წ 0 0 the ຫຸ

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insulin-like growth factor I precursor - rat
C;Species: Rattus norvegicus (Norway rat)
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R;Shimatsu, A.; Rotwein, P.
J. Biol. Chem. 262, 7894-7900, 1987
J.;Biol. Chem. 262, 7894-7900, 1987
A;Reference number: A27804; MUID:87222423; PMID:3034909
A;Accession: A27804
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NyAlternate names: IGF-IA; somatomedin C
C;Species: Mus musculus (house mouse)
C;Date: 30-Jun-1988 #sequence revision 30-Jun-1988 #text_change
C;Accession: A25540; I55295; I59090; B25540
C;Accession: A25540; I55295; I59090; B25540
C;Accession: A25540; I75295; I75090; N.M.; Rall, L.B.
Nucleic Acids Res. 14, 7873-7882, 1996
A;Title: Sequences of liver cDNAs encoding two different mouse i
A;Reference number: A93643; MUID:87040760; PMID:3774549
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                                             A;Cross-references: GB:X04480; NID:g51801; R;Tollefsen, S.E.; Lajara, R.; McCusker, R. J. Biol. Chem. 264, 13810-13817, 1989
A;Title: Insulin-like growth factors (IGF)
A;Reference number: I55295; MUID:89340472;
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A;Title: Rat IGF-I cDNA's contain multiple 5'-untranslated
A;Reference number: IS2218; MUID:87298553; PMID:3619921
A;Accession: I65202
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A;Molecule type: DNA
A;Residues: 1-181 <SHI>
A; Accession: 155295
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A; Accession: A25540
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R;Roberts, C.T.
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Molecule type: DNA

from

GB/EMBL/DDBJ

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CySuperfamily: insulin
CySuperfamily: insulin
CySuperfamily: insulin
CyCommain: signal sequence #status predicted <SIG>
F;1-22/Domain: signal sequence #status predicted <ADGS-
F;23-127/Product: insulin-like growth factor IA (active) #status predicted
F;23-51/Domain: insulin chain B-like #status predicted <DOB-
F;52-63/Domain: insulin commetting C peptide-like #status predicted <DOC>
F;64-84/Domain: insulin chain A-like #status predicted <DOA>
F;85-92/Domain: D peptide #status predicted <DOB>
F:93-127/Domain: carboxyl-terminal propeptide (E peptide) #status predict
                                                                                                                                             A;Molecule type: mRNA
A;Residues: 27-153 <KANT>
A;Cross references: GB:D00698; NID:g220780; PIDN:BAA00604.
A;Cross references: GB:D00698; NID:g220780; PIDN:BAA00604.
A;Experimental source: liver
R;Murphy, L.J.; Bell, G.I.; Duckworth, M.L.; Friesen, H.G.
Endocrinology 121, 684-691, 1987
A;Title: Identification, characterization, and regulation
A;Reference number: A28504; MUID:87246437; PMID:3595538
A;Accession: A28504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Shimatsu, A.; Rotwein, P. J. Biol. Chem. 262, 7894-7900, 1987 J. Biol. Chem. 262, 7894-7900, 1987 A;Title: Mosaic evolution of the insulin-like growth factors. Organization, A;Reference number: A27804; MUID:87222423; PMID:3034909 A;Accession: B27804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N;Alternate names: IGF-IA; somatomedin C C;Species: Rattus norvening / "----
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A; Residues: 27-153 <CAS>
A; Residues: 27-153 <CAS>
A; Crose-references: GB.M17335; NID:g204751; PIDN:AAA41386.1; PI
R; Kato, H.; Okoshi, A.; Miura, Y.; Noguchi, T.
Agric. Biol. Chem. 54, 1599-1601, 1990
A; Title: A new cDNA clone relating to larger molecular species
A; Reference number: JH0133; MUID:91103966; PMID:1368571
A; Accession: JH0133
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                       A; Molecule type: mRNA
A; Residues: 46-153 cMUR>
A; Residues: 46-153 cMUR>
A; Cross-references: GB: M17714; NID: 9204324; PIDN: AAA41227.1; PID: 9204325
R; Kato, H.; Takenaka, A.; Miura, Y.; Nishiyama, M.; Noguchi, T.
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A; Residues: 49-108 < RE2 >
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A;Tille: Isolation of rat testis cDNAs encoding an insulin-like growth factor I precurso A;Tille: Isolation of rat testis cDNAs encoding an insulin-like growth factor I precurso A;Reference number: A27849; MUID:88003970; PMID:3652906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: GB:M15651; R;Casella, S.J.; Smith, E.P.; V DNA 6, 325-330, 1987
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;Date: 16-Mar-1989 #sequence_revision 16-Mar-1989 #text_change 21-Jul-2000;Date: 16-Mar-1989 #sequence_revision 16-Mar-1989 #text_change 21-Jul-2000;Accession: B27804; A27849; JH0133; A28504; JN0088; A32857; A61096
                                                                                                                                Reference number: A28504; MUID:87246437; Accession: A28504
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Best Local Similarity
Matches 31; Conserv
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Hoyt, E.C.; Lund
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A;Experimental source: liver
A;Note: the authors present evidence that this mRNA may contain R;Tamura, K.; Kobayashi, M.; Ishii, Y.; Tamura, T.; Hashimoto, K Biol. Chem. 264, 5616-5621, 1989
A;Title: Primary structure of rat insulin-like growth factor-I a A;Reference number: A32857; MUID:89174609; PMID:2538424
A;Accession: A32857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Delafontaine, P.; Lou, H.; Harrison, D.G.; Bernstein, K.E. Gene 130, 305-306, 1993
A;Title: Sequence of a cDNA encoding dog insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin-like growth factor Ia precursor - dog (fragment)
C;Species: Canis lupus familiaris (dog)
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change
C;Accession: PN0622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Superfamily: insulin
C;Keywords: alternative splicing; growth factor
F;49-118/Product: insulin-like growth factor I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 49-118 <TAM's
R;Canalis, E.; McCarthy, T.; Centrella, M.
Endocrinology 122, 22-27, 1988
A;Title: Isolation and characterization of insulin-like
A;Reference number: A61096; MUID:88082445; PMID:3335205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Evidence of introduction by molecular cloning of artificial inverted sequence A;Reference number: JN0088; MUID:91136779; PMID:1368576
A;Accession: JN0088
A;Molecule type: mRNA
A;Residues: 'MSAPP', 22-153 <KA2>
A;Residues: 'MSAPP', 22-153 <KA2>
             R;Bell, G.I.; Stempien, M.M.; Fong, N.M.;
Nucleic Acids Res. 18, 4275, 1990
A;Title: Sequence of a CNNA encoding guine
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A; Residues: 1-122 <DEL>
C; Comment: This protein
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A; Residues: 49-53,'X',55-65 <CAN>
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                                                                           insulin-like growth factor I precursor - guinea pig
C;Species: Cavia porcellus (guinea pig)
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_
C;Accession: S12719
                                                                                                                                                                 IGGP1
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;Keywords: growth fact
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encoding guinea pig IGF-I.
MUID:90332447; PMID:2377480
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Nakamura, S.; Niwa,
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C;Keywords: glycoprotein; growth factor; plasma
C;Keywords: glycoprotein; growth factor; plasma
F;l3-3/Domain: signal sequence #status predicted <SIG>
F;33-10/Product: insulin-like growth factor I #status predicted <CHB>
F;33-61/Domain: insulin chain B-like #status predicted <CHB>
F;62-73/Domain: insulin connecting C peptide-like #status predicted <CHA>
F;74-94/Domain: insulin chain A-like #status predicted <CHA>
F;94-94/Domain: D peptide #status predicted <CHD>
F;95-102/Domain: D peptide #status predicted <CHD>
F;103-137/Domain: carboxyl-terminal propeptide (E peptide) #status predicted
F;124/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                A; Molecule type: DNA
A; Residues: 1-138 <DIC>
A; Cross-references: EMBL:X51358
A; Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C.
Endocrinology 124, 1173-1183, 1989
A; Title: Sheep insulin-like growth factors I and II: sequences, activities
A; Reference number: S07198; MUID:89136887; PMID:2537174
A; A; A; Ccession: S07198
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A;Molecule type: mENA
A;Residues: 1-137 <TOB>
A;Cross-references: GB:M37484; NID:g184833; PIDN:AAA52789.1; PID:g184834
C;Superfamily: insulin
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A,Title: A novel human insulin-like
A;Reference number. Access """
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J. Mol. Endocrinol. 6, 17-31, 1991
A,Title: The ovine insulin-like growth factor-I gene: characterization, expression and A,Reference number: S22877; MUID:91197361; PMID:2015053
A;Accession: S22878
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A;Residues: 1-137 <BEL>
A;Cross-references: EMML:X52951
A;Note: it is uncertain whether Met-1 or Met-8 is the initiator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nsulin-like growth factor la precursor - human
;Species: Homo sapiens (man)
;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991
;Accession: A36552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nsulin-like growth factor I precursor, splice form 2 - sheep;Species: Ovis orientalis aries, Ovis ammon aries (domestic she;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change;Apcession: §22878; $07198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;Accession: A36552; Bruenner, N.; Rotwein, ;Tobin, G.; Yee, D.; Bruenner, N.; Rotwein,
                                                                                                                                                                                                                                                                                               Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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cype: protein 34-103 <FRA>
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Pred. No. 4.5e-1
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Pred. No.
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                                                                                                                          assays.
                                                                                    A;Molecule type: mRNA
A;Residues: 1-153 <STE>
A;Cross-references: EMBL:X57025; NID:g33007; PIDN:CAA40342.1; PID:g33008
A;Cross-references: EMBL:X57025; NID:g33007; PIDN:CAA40342.1; PID:g33008
A;Choss-references: EMBL:X57025; NID:g33007; PIDN:CAA40342.1; PID:g33008
A;Lett. 196; 108-112; 1986
PEBS Lett. 196; 108-112; 1986
A;Ritle: Complete characterization of the human IGF-I nucleotide sequence isolated A;Reference number: A23622; MUID:86108910; PMID:2935423
A;Accession: A23622; MUID:86108910; PMID:2935423
A;Accession: A23622; MUID:86108910; PMID:2935423
A;Accession: A23622; MUID:86108910; PMID:2935423
A;Residues: 1-153 <LEBS
                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-153 «JRN)
A; Cross-references: GB:X00173; NID:g33015; PIDN:CAA24998.1; PID:g33016
A; Note: Met-24 is proposed as a likely initiator
R; Steenbergh, P.H.; Koonen-Reemst, A.M.C.B.; Cleutjens, C.B.J.M.; Sussenbach, J.S.
Biochem. Biophys. Res. Commun. 175, 507-514, 1991
A; Title: Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.
A; Reference number: JT0571; MUID:91207342; PMID:2018498
A; Accession: JT0571
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A;Cross-references: GB:M27544; NID:g184829; R;Rinderknecht, E.; Humbel, R.E. J. Biol. Chem. 253, 2769-2776, 1978
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NID:g33020; PIDN:CAA27152.1; PID:g33021; A.T.; Bullock, B.; Woods, D.E.; Gabbay, I

K.H.

factor I precursor

PIDN:AAA52787.1;

PID:g306927

fro

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C;Genetics: 5/3; 59/1; 119/3
C;Superfamily: insulin
C;Keyword
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin-like growth factor I precursor, splice form A [validated] - human N;Alternate names: IGF-I long splice form precursor; IGF-IA; scmatcmedin C C;Species: Homo saplens (man) C;Date: 24-Apr-1984 #sequence_revision 30-Jun-1987 #text_change 31-Dec-2000 C;Accession: A92581; A23614; A93321; JT0571; A23622; A92726; A60483; S30519; R;Rottwein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G. A;Rottwein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G. A;Title: Organization and sequence of the human insulin-like growth factor I A;Reference number: A92581; MUID:86168194; PMID:2937782
A;Accession: A92581
A; Molecule type: DNA
A; Residues: 24-153 < DEP>
A; Residues: 24-153 < DEP>
A; Cross-references: GB:X03420; GB:X00362; NID:g33020; PIDN:CA
A; Cross-references: GB:X03420; GB:X00362; NID:g33020; PIDN:CA
R; Jansen, M.; van Schaik, F.M.A.; Ricker, A.T.; Bullock, B.;
Nature 306, 609-611, 1983
A; Title: Sequence of cDNA encoding human insulin-like growth
A; Reference number: A93321; MUID:84068210; PMID:6358902
A; Accession: A93321
                                                                                                                                                                                                                                                                                       A;Cross-references: GB:M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110
R;de Pagter-Holthuizen, P.; van Schaik, F.M.A.; Verduijn, G.M.; van Ommen, G.J.
FEBS Lett. 195, 179-184, 1986
A;Title: Organization of the human genes for insulin-like growth factors I and A;Reference number: A91356; MUID:86108862; PMID:3002851
A;Accession: A23614
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
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Best Local :
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A; Introns: 2
C; Superfamil
C; Keywords:
F; 1-21/Domai
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A; Residues: 1-123'.5', 125-132', 'E',134-153 <SAN'>
A; Residues: 1-123'.5', 125-132', 'B:S61841; NID:g32989
A; Cross-references: GB:S56773', GB:S61841; NID:g32989
A; Experimental source: anaplastic oligodendroglioma
A; Note: sequence extracted from NCBI backbone (NCBIN:133056, NCBIP:133057)
A; Note: sequence inconsistent with the nucleotide translation
R; Rall, L.B., Scott, U.; Bell, G.I.
Reth. Enzymol. 146, 239-248, 1987
A; Title: Human insulin-like growth factor I and II messenger RNA: isolation
A; Reference number: IS7044; MUID:88065102; PMID:3683205
A; Accession: IS7044
                            RESULT 12
IGBO1
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R,Nordqvist Sandberg, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.
submitted to the EMBL Data Library, November 1990
A,Description: Nucleotide sequence of the human fetal brain IGF-1a.
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A;Residues: 24-153 <RAL>
A;Cross-references: GB:M29644; NID:g183119; PIDN:AAA52543.1; PID:g183120
C;Comment: The insulin-like growth factors, isolated from plasma, are st:C;Comment: For an alternative splice form, see PIR:IGHUIB.
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   ingulin-like
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;Karey, K.P.; Marquardt, 100d 74, 1084-1092, 1989
;Title: Human platelet-derived mitogens. Identification.;Title: Human platelet-derived mitogens. PMID:2752153
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Best Local S
Matches 26
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Keywords: alternative splicing; growth factor; plasma;

Keywords: alternative splicing; growth factor; plasma;

1-21/Domain: signal sequence #status predicted <PRO>

22-48/Domain: propeptide #status predicted <PRO>

49-118/Product: insulin-like growth factor I #status experimental <MAT>

49-77/Domain: insulin chain B-like #status experimental <CHB>

78-89/Domain: insulin connecting C peptide-like #status experimental <CHC>

90-110/Domain: insulin chain B-like #status experimental <CHA>

90-110/Domain: insulin chain A-like #status experimental <CHA>
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,Residues: 49-53,'X',55-65,'X',67-75 <KAR>
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;Residues: 49-118 <RIN>
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:119-153/Domain: carboxyl-terminal propeptide (E pept:
:54-96,66-109,95-100/Disulfide bonds: #status predicts
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growth
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                                                                                                                                                                                                          RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                      Conservative
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   factor
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100.0%;
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bonds: #status predicted
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Pred. No.
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A;Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences A;Reference number: S00465; MUID:88268820; PMID:3390164
A;Accession: S00465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;111-118/Domain: D peptide #status experimental <CHD>
F;119-153/Domain: carboxyl-terminal propeptide (E peptide)
F;54-96,66-109,95-100/Disulfide bonds: #status predicted
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R;Honegger, A.; Humbel, R.E.
J. Biol. Chem. 261, 569-575, 1986
A;Title: Insulin-like growth factors I and
A;Reference number: A92585; MUID:86085881;
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A; Residues: 1-153 < FOT>
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Nucleic Acids Res. 18, 676, 1990
A;Title: Nucleotide sequence of the bovine
A;Reference number: S12672; MUID:90175014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: IGF-I; somatomedin C
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1988 #sequence revision 28-Apr-1995 #text_change 18-Jun-1999
C;Date: 35-Mar-1980 #sequence revision 28-Apr-1995 #text_change 18-Jun-1999
C;Accession: S12672; A25623; S00465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Keywords: alternative splicing; colostrum; growth factor; plasma F;1-20/Domain: signal sequence (fragment) #status predicted <SIG>
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A; Residues: 49-118 < HON>
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                                                                                                 A;Molecule type: DNA
A;Residues: 1-153 <MUE>
A;Cross-references: EMBL:X52388
A;Cross-references: EMBL:X52388
R;Dickson, M.C.; Huskisson, N.S.; Gi
submitted to the EMBL Data Library,
A;Description: Porcine Insulin-like
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Nucleic Acids Res. 18, 364, 1990
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                               A; Reference number: S21488
A; Accession: S21488
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                                                                                                                                                                                                                                                                                                                                                                    ;Title: Nucleotide sequence ;Reference number: S12825; Maccession: S12825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Species: Sus scrofa domestica (domestic pig); Species: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Jul-1999; Dacession: $12825; $21488; A34938; A60738
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DNA
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                                                                                                                                                                                .S.; Gilmour, R.S
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PMID:3941093
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PMID:2308858
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Riosci. Biotechnol. Biochem. 59, 87-92, 1995

A, Fittle: Dynamic aspects in the expression of the goat insulin-like growth A, Reference number: JC2483; MUID:95201385; PMID:7765981

A, Accession: JC2483

A, MACCESSION: JC2483
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A; Residues: 'Y', 21-153 <TAV>
A; Residues: 'Y', 21-153 <TAV>
A; Residues: 'Y', 21-153 <TAV>
A; Cross-references: GB.M31175
R; Francis; G.L.; Owens, p.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
R; Francis; G.L.; Owens, p.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 122, 681-687, 1989
J. Endocrinol. 122, 681-687, 1989
A; Title: Purification, amino acid sequences and assay cross-reactivities of porcine
A; Title: Purification, Af0738; MUID:90039035; PMID:2809477
insulin-like growth factor I precursor, splice form 1 - N,Alternate names: somatomedin C C;Species: Ovis orientalis aries, Ovis ammon aries (dome C,Date: 09-Mar-1990 #sequence revision 27-Feb-1997 #text C;Accession: S22897; A33390; S07955; S07198 R;Dickson, M.C.; Saunders, J.C.; Gilmour, R.S. J. Mol. Endocrinol. 6, 17-31, 1991
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F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-48/Domain: propeptide #status predicted <PRO>
F;49-153/Product: insulin-like growth factor IA #status experimental
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C;Superfamily: insulin
F;1-49/Domain: signal sequence #status
F;50-119/Product: insulin-like growth f
F;120-154/Region: E domain
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R;Tavakkol, A.; Simmen, F.A.; Simmen, R.C.M.
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A; Residues: 1-154 <MIK>
A; Cross-references: GB:S11378;
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C; Superfamily: insuli
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C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 16-Mar-1995 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
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Best Local Similarity
Matches 26; Conserv
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Endocrinol. 2, 674-681, 1988
tle: Porcine insulin-like growth factor-I
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100.0%;
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factor-I #status
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#text_change 23-Jul-1999
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                                                                                                                            A;Molecule type: DNA
A;Residues: 1-195 <ROT1>
A;Cross_references: GB:M14155; NID:gl83106; PIDN:AAA52537.1;
                                                                                                                                                                                                       J. Biol. Chem. 261, 4848-4934, 1390
A;Title: Organization and sequence of the human insulin-like
A;Reference number: A92581; MUID:86168194; PMID:2937782
                                                                                                                                                                                                                                                                          R;Rotwein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G. J. Biol. Chem. 261, 4828-4832, 1986
                                                                                     Proc. Natl.
                                                                                                          R;Rotwein, P.
                                                                                                                                                                                                  A; Accession: A01611
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roc. Natl. Acad. Sci. U.S.A. 83, 77-81, 1986;Title: Two insulin-like growth factor I messenger RNAs;Reference number: A26181; MUID:86094355; PMID:3455760

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expressed

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human liver

PID:g183109

growth factor I gene.

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A;Title: The ovine insulin-like growth factor-I gene: characterization, A;Reference number: S22877; MUID:91197361; PMID:2015053 A;Accession: S22877 A;Molecule type: PMIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: insulin
C;Keywords: alternative splicing; growth factor; plasma
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-49/Domain: propeptide #status predicted <PRO>
F;20-119/Product: insulin-like growth factor I (active) #status experimental
F;50-78/Domain: insulin chain B-like #status predicted <DOB>
F;79-90/Domain: insulin connecting peptide-like #status predicted <CHC>
F;91-111/Domain: insulin chain A-like #status predicted <DOA>
F;112-119/Domain: peptide D #status predicted <CHD>
F;120-154/Domain: carboxyl-terminal propeptide (E peptide) #status predicted
F;55-97,67-110,96-101/Disulfide bonds: #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Residues: 1-154 <DIC>
A;Cross-references: EMBL:X51358
A;Cross-references: EMBL:X51358
R;Wong, E. A.; Ohlsen, S.M.; Godfredson,
DNA 8; 649-657, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Title: Sheep insulin-like A; Reference number: S07198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owens, P.C. Endocrinology 124, 1173-1183, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Cloning of ovine insulin-like growth factor-I cDNAs: A;Reference number: A33390; MUID:90126234; PMID:2575490
insulin-like growth factor I precursor, splice form B [validated N;Alternate names: IGF-IB; somatomedin C N;Contains: insulin-like growth factor IB-El amide C;Species: Homo sapiens (man) C;Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change C;Accession: A01611; A26181; S30540; B48950; A42664 C;Accession: A01611; A26181; S30540; B48950; A42664
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A;Residues: 1-43,'SS',46-154 <WCN>
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A; Residues: 50-79 < HEY>
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Best Local &
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100.0%; Pred. No. 4.9
tive 0; Mismatches
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A;Cross-references: GB:X56774; GB:S61860; NID:g32991; PIDN:CAA40093.1; PID:g32992
A;Experimental source; anaplastic oligodendroglioma
A;Note: sequence modified after extraction from NCBI backbone
A;Note: the authors translated the codon CAG for residues 124 and 133 as Glu
A;Note: sequence extracted from NCBI backbone (NCBIN:133058)
A;Note: sequence extracted from NCBI backbone (NCBIN:133058)
A;Siegfried, J.M.; Kasprzyk, P.G.; Treston, A.M.; Mulshine, J.L.; Quinn, K.A.; Cut
Proc. Natl. Acad. Sci. U.S.A. 9: Treston, A.M.; Mulshine, J.L.; Quinn, K.A.; Cut
Proc. Natl. Acad. Sci. U.S.A. 9: Treston, A.M.; Mulshine, J.L.; Quinn, K.A.; Cut
A;Title: A mitogenic peptide amide encoded within the E peptide domain of the inst
A;Reference number: A42664; MUID:92390398; PMID:1325646
A;Contents: annotation; IBs-1; amidated Carboxyl end
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A;Description: Nucleotide sequence of the human fetal brain IGF-1b
                                                                                                                                                                                insulin-like growth factor IA precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 03-Apr-1992 #sequence_revision 03-Apr-1992 #text_change 16-Jul-1999
C;Accession: A41399; A61092; A40012; B60853; A37415
R;Kajimoto, Y.; Rotwein, P.
Mol. Endocrinol. 3, 1907-1913, 1989
Mol. Endocrinol. 3, 1907-1913, 1989
A;Reference number: A41399; MUID:90190648; PMID:2628728
A;Accession: A41399; MUID:90190648; PMID:2628728
A;Accession: A41399;
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7,78-89/Domain: insulin chain B-like #status predicted <CHB>
7,78-89/Domain: insulin connecting C peptide-like #status predicted <CHC>
7,90-110/Domain: insulin chain A-like #status predicted <CHA>
7,111-118/Domain: D peptide #status predicted <CHA>
7,111-118/Domain: D peptide #status predicted <CHA>
7,119-195/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CHE>
7,151-172/Product: insulin-like growth factor IB-E1 amide #status predicted <MA2>
7,54-96,66-109,95-100/Disulfide bonds: #status predicted
7,54-96,66-109,95-100/Disulfide bonds: #status predicted
7,172/Modified site: amidated carboxyl end (Arg) (amide in mature form from fallows)
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Best Local S
Matches 26
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Map position: 12q22-12q24.1;
Introns: 21/3; 74/1; 134/3
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;Cross-references: GB:M32791; NID:g211950;
;Fawcett, D.H.; Bulfield, G.
. Mol. Endocrinol. 4, 201-211, 1990
                                                                                                          Molecule type: mRNA
Residues: 1-153 <KAJ>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Molecule type: mRNA
Residues: 1-195 <SA2>
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100.0%;
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                                                                                 PIDN: AAA48828.1;
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                                                                             PID:g211951
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R;Ballard, F.J.; Johnson, R.J.; Owens, P.C.; Francis, G.L.; Upton, Gen. Comp. Endocrinol. 79, 459-468, 1990
A;Title: Chicken insulin-isource description acid sequence, A;Reference number: A37415; MUID:91106695; PMID:2272467
A;Accession: A37415
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R;Rajimoto, Y.; Rotwein, P.
J. Biol. Chem. 266, 9724-9731, 1991
J. Biol. Chem. 266, 9724-9731, 1991
A;Title! Structure of the chicken insulin-like growth factor I gene reveals conserved A;Reference number: A40012; MUID:91236750; PMID:2033062
A;Accession: A40012
                                                                                                                                           A;Cross-references: GB:M29857; NID:g214287; PIDN:AAA70330.1; R;Shuldiner, A.R.; Nirula, A.; Scott, L.A.; Roth, J. Biochem. Biophys. Res. Commun. 166, 223-230, 1990 A;Title: Evidence that Xenopus laevis contains two different A;Reference number: A90158; MUID:90147704; PMID:2302204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin-like growth factor I', precursor - African C;Species: Xenopus laevis (African clawed frog) C;Date: 30-Nov-1990 #sequence_revision 30-Nov-1990 C;Accession: A36079; B34049 R;Kajimoto, Y; Rotwein, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Keywords: growth factor F;49-77,90-110/Froduct: insulin-like growth factor IA #status experimental 
F;49-77,00-110/Froduct: insulin-like growth factor IA B chain #status predicted <CHB F;49-77/Domain: insulin connecting C peptide-like #status experimental <CPE>F;78-89/Domain: insulin connecting C peptide-like #status experimental <CPE>F;90-110/Domain: insulin-like growth factor IA A chain #status experimental F;111-118/Domain: D peptide #status experimental <MAA>F;119-153/Domain: carboxyl-terminal propeptide (E peptide) #status predicted
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J. Endocrinol. 117, 173-181,
                                                                                                                                                                                                                                                                                                                                                                               Mol. Endocrinol. 4, 217-226, 1990
A;Title: Evolution of insulin-like growth factor I (IGF-I):
A;Reference number: A36079; MUID:90231335; PMID:2330002
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R;Dawe, S.R.; Francis, G.L.; McNamara, P.J.; Wallace, J.C.; Ballard, F.J.
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A; Residues: 1-21 < KA2>
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A;Gene: IGF-I''
                                                              A; Molecule type: DNA
A; Residues: 82-85, 'A', 87-125
                                                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 1-153 < KAJ >
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A; Residues: 49-118 <BAL>
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A;Residues: 49-79 <DAW>
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R;Levinovitz, A.; Norstedt, G.; van den Berg, S.; Robinson, I.C.; Ekstrom, T.J. Mol. Cell. Endocrinol. 89, 105-110, 1992
A;Title: Isolation of an insulin-like growth factor II cDNA from guinea pig liv A;Reference number: I57671; MUID:93246007; PMID:1301379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Gene: IGF-11
C; Superfamily:
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                                                Insulin-like growth factor-I precursor (clone OtIGFI-0) - chinook salmon C,Species: Oncorhynchus tschawytscha (chinook salmon) C;Date: 13-Sep_1994 #sequence_revision 25-Apr-1997 #text_change 16-Jul-1999 C;Accession: D54270
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A; Cross-references: GB:S59899;
C; Superfamily: insulin
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C;Species: Cavia porcellus (guinea pig)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 16-Jul-1999
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C; Genetics:
R;Wallis, A.E.; Devlin, R.H.
Mol. Endocrinol. 7, 409-422, 1993
A;Title: Duplicate insulin-like growth
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D54270
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A; Molecule type: protein
A; Residues: 1-67 < RRA>
R; Valenzano, K.J; Remmler, J.; Lok
R; Valenzano, K.J; Remmler, 16448, 19
J. Biol. Chem. 270, 16441-16448, 19
A; Title: Soluble insulin-like growt
A; Reference number: A57470; MUID:99
A; Accession: A57470
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A; Status: preliminary
A; Molecule type: mRNA
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A,Title: Insulin-like growth factors I and II in fetal and A,Reference number: A92585; MUID:86085881; PMID:3941093
A,Accession: B25623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1988 #sequence revision 22-Apr-1995 #text_change 23-Mar-2001
C;Accession: S10983; S37617; B25623; A34645; S00466; A57470
C;Accession: Dziegielewska, K.M.; Foreman, R.C.; Saunders, N.R.
Nucleic Acids Res. 18, 4614, 1990
A;Title: The nucleotide and deduced amino acid sequences of insulin-like growth facto A;Reference number: S10983; MUID:90356421; PMID:2388846
A;Accession: S10983; MUID:90356421; PMID:2388846
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R;Congote, L.F.; Mazza, L.; Palfree, R.G.E.
Comp. Biochem. Physiol. B 103, 127-131, 1992
Comp. Biochem. Physiol. B 103, 127-131, 1992
A;Title: Nucleotide sequence of the central coding region time of hepatic erythropoiesis.
A;Reference number: S37617; MUID:93083057; PMID:1280544
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A;Residues: 6-155 <BR52:
A;Cross-references: EMBL:X53553; NID:g459; PIDN:CAA37620.1;
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                                                                                                                                                                        R;Francis, G.L.; Upton, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace Biochem. J. 251, 95-103, 1988 A;Title: Insulin-like growth factors 1 and 2 in bovine colostrum. A;Reference number: S00465; MUID:88268820; PMID:3390164 A;Accession: S00466
                                                                                                                                                                                                                                         A;Molecule type: protein
A;Residues: 1-34,'S',36-67 <HON>
R;Les Bacher, R; Esch, F; Congote, L.F.
Biochem. Biophys. Res. Commun. 166, 557-561, 1990
A;Title: A heparin-binding erythroid cell stimulating factor
A;Reference number: A34645, MUID:90147754; PMID:2302223
A;Accession: A34645
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A; Residues: 6-62 < CON>
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                            ke growth factor MUID:95332360; I
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                            r II/mannose 6-phosphate receptor carries | PMID:7608216
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preliminary

type: protein : 1-5 <VAL>

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C;Keywords: colostrum; growth factor; heparin binding; mitogen; plasma F;1-67/Product: insulin-like growth factor II #status experimental <MAT> F;1-27/Domain: insulin B chain-like #status experimental <DOB> F;28-40/Domain: insulin connecting C peptide-like #status experimental <CPE> F;41-61/Domain: insulin A chain-like #status experimental <DOA> F;62-67/Domain: D peptide #status experimental <CPD> F;62-67/Domain: carboxyl-terminal propeptide (E peptide) #status predicted F;9-47,21-60,46-51/Disulfide bonds: #status predicted
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A;Note: sequence extracted from NCBI backbone (NCBIN:130889, NCBIP:130893)
C;Superfamily: insulin
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A;Recession: C44012
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A;Accession: C54270
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R;Wallis, A.E.; Devlin, R.H.
Mol. Endocrinol. 7, 409-422, 1993
A;Title: Duplicate singulin-like gi
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C;Accession: C44011; A44012; B44012
R;Duguay, S. J.; Park, L.K.; Samadgour, M.; Dickhoff, W.W.
Mol. Endocrinol. 6, 1202-1210, 1992
                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-161 <WAL>
                                                                                                                                                                                                                                                                                                                                                                                                                               insulin-like growth factor-I precursor (clone OtIGFI-36) - chinook salmon
C;Species: Oncorhynchus tschawytscha (chinook salmon)
C;Date: 13-Sep-1994 #sequence_revision 25-Apr-1997 #text_change 16-Jul-19
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A;Note: sequence extracted from NCBI backbone (NCBIP:115177)
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insulin-like growth factor I precursor, splice form 2 - coho salmon N;Contains: insulin-like growth factor I, splice form 1 C;Species: Oncorhynchus kisutch (coho salmon)
C;Date: 03-Apr-1992 #sequence revision 03-Apr-1992 #text_change 21-Jul-2000
C;Accession: A41396; I51255; A44012; B44012
R;Cao, O.P.; Duguay, S.J.; Plisetskaya, E.; Steiner, D.F.; Chan, S.J.
Mol. Endocrinol. 3, 2005-2010, 1989
A;Title: Nucleotide sequence and growth hormone-regulated expression of salmon insulin-l. A;Reference number: A41396; MUID:90190659; PMID:2628735
A;Accession: A41396
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A;Residues: 1-5',F',7-16' <KOV>
A;Residues: 1-5',F',7-16' <KOV>
A;Cross-references: GB:S74130; NID:g707007; PIDN:AAD14148.1; PID:g4261848
R;Dugnay, S.J.; Park, L.K.; Samadpour, M.; Dickhoff, W.W.

Mol. Endocrinol. 6, 1202-1210, 1992
A;Title: Nucleotide sequence and tissue distribution of three insulin-like
A;Reference number: A44012; MUID:93024477; PMID:1406698
A;Accession: A44012
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A;Title: Characterization of a salmon insulin-like growth factor I promoter. A;Reference number: I51255; MUID:95032736; PMID:7945938
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C;Keywords: growth fac
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A;Residues: 27-169 <DU2>
A;Cross-references: GB:M81912; NID:g213440; PIDN:AAB59948.1;
A;Note: sequence extracted from NCBI backbone (NCBIP:115182)
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A; Residues: 1-176 < CAO >
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US-09-858-9358-3
3 US-10-028-410-1
4 US-10-136-639-1
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Sequence 7, Appli
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     14 US-10-233-046-42
9 US-09-852-261-10
9 US-09-852-261-2
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9 US-09-852-261-3
14 US-10-179-046-14
14 US-10-251-661-8
14 US-10-251-663-3
14 US-10-20-856-41
15 US-10-20-856-41
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16 US-09-20-658-141
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    Sequence 42, Appl
Sequence 14, Appl
Sequence 14, Appl
Sequence 6, Appli
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Sequence 74, Appl
Sequence 74, Appl
Sequence 55, Appli
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Sequence 41, Appl
Sequence 41, Appl
Sequence 10, Appl
Sequence 11, Appl
Sequence 12, Appl
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Sequence 17, Appl
Sequence 17, Appl
Sequence 18, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 18, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 27, Appl
Sequence 2
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Result

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US-09-852-261-4

Sequence 4, Application US/09852261

Patent No. US20020083477A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: GENERHI, GEOFFREY
APPLICANT: TERENGHI, GIORGIO

TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351

CURRENT APPLICATION NUMBER: US/09/852,261

CURRENT APPLICATION NUMBER: GB 0011278.9

PRIOR APPLICATION NUMBER: GB 0011278.9

PRIOR FILING DATE: 2000-05-10

NUMBER OF SEQ ID NOS: 14

SOFTWARE: Patentin Ver: 2.1

SEQ ID NO 4

LENGTH: 111
                                      APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAWAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 12
LENGTH: 105
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; TYPE: PRT
; ORGANISM: Rattus sp.
US-09-852-261-12
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Best Local :
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ORGANISM: Rattus sp
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US-10-295-027-1334

US-10-173-999-60

US-10-171-889-1

US-10-204-041-4

US-10-204-041-6

US-10-457-954-6

US-10-211-088-236

US-10-107-532-1696

US-10-107-532-2791

US-10-107-532-4041
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Pred. No. 8.6e-77;
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Sequence 4, Appli
Sequence 6, Appli
Sequence 236, App
Sequence 2791, Ap
Sequence 4027, Ap
Sequence 4041, Ap
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Query Match

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Score 61;

DB 9;

Length 105;

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APPLICANT: PARIOW, Vendela
APPLICANT: Rosengren, Linda
TITLE OF INVENTION: NEW METHODS
FILE REFERENCS: 13425-11001
CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT FILING DATE: 2002-05-31
CURRENT FILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: SE 0101934-8
PRIOR FILING DATE: 2001-06-01
NUMBER OF SEQ ID NOS: 3
SOSTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 133
TYPE: PRT
CRGANISM: Homo sapiens
US-10-161-088-2
                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 29
LENGTH: 70
TYPE: PRT
ORGANISM: Homo sapiens
US-09-848-664-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Sakiyama-Elbert, Shelly E.
APPLICANT: Hubbell, Jeffrey A.
TITLE OF INVENTION: Controlled Release of No
TITLE OF INVENTION: Factors from Heparin Co.
FILE REFERENCE: ETH 108
CURRENT APPLICATION NUMBER: US/09/848,664
CURRENT FILING DATE: 2001-05-03
PRIOR APPLICATION NUMBER: 09/298,084
PRIOR FILING DATE: 1999-04-22
NUMBER OF SEQ ID NOS: 31
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US-09-848-664-29
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; Pred. No. 9.7e-23;
0; Mismatches 0;
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); Mismatches 0;
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FILE REFERENCE: 22908-1228
; CURRENT APPLICATION NUMBER: US/09/903,327A
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: 09/613,017
PRIOR FILING DATE: 2000-07-10
; PRIOR FILING DATE: 2000-07-10
; NUMBER OF SEC ID NOS: 33
; SOFTWARE: FRSESSEQ for Windows Version 4.0
; SEQ ID NO 8
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US-09-848-664-30
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Sequence 3, Application US/09858935B Publication No. US20030069177A1 GENERAL INFORMATION:
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SEQ ID NO 30
LENGTH: 70
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TITLE OF INVENTION: Controlled Release of No. US20020146414A1-Heparin Binding Growth
TITLE OF INVENTION: Factors from Heparin Containing Matrices
FILE REFERENCE: ETH 108
CURRENT APPLICATION NUMBER: US/09/848,664
CURRENT FILING DATE: 2001-05-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Li, Erguang
TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET
TITLE OF INVENTION: GENE
TITLE OF INVENTION: DELIVERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 09/298,084
PRIOR FILING DATE: 1999-04-22
NUMBER OF SEQ ID NOS: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Sakiyama-Elbert, Shelly E. APPLICANT: Hubbell, Jeffrey A.
                                                                                                                                                                                                                                                                                                                                      NAME/KEY: PEPTIDE LOCATION: (0)...(0)
OTHER INFORMATION: Human Insulin-like Growth Factor 1 sequence OTHER INFORMATION: (IGF-1, mature peptide)
                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Human
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26; Conserv
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100.0%; Pred. No. 4.7e-18;
ative 0; Mismatches 0;
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FILE REFERENCE: \$1869R1
CURRENT APPLICATION NUMBER: US/10/066,009A
CURRENT FILING DATE: 2002-06-24
PRICK APPLICATION NUMBER: US 60/287,072
PRIOK FILING DATE: 2001-04-27
PRIOK PPLICATION NUMBER: US 60/267,977
PRIOK FILING DATE: 2001-02-09
NUMBER OF SEQ ID NOS: 5

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APPLICANT: LOWMAN, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P1712R1-1
CURRENT APPLICATION NUMBER: US/10/028,410
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: US/9/477,924
PRIOR FILING DATE: 2000-01-05
PRIOR FILING DATE: 2000-01-05
SEQ ID NO 1
LENGTH: 70
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                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens US-10-028-410-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/10028410 publication No. US20020160955A1 GENERAL INFORMATION: APPLICANT: Dubaquie, Yves APPLICANT: Lowman, Henry
Sequence 1, Application US/10066009A
publication No. US2002016515A1
GENERAL INFORMATION:
APPLICANT: Schaffer, Michelle
APPLICANT: Ultsch, Mark
APPLICANT: Vajdos, Felix
TITLE DEFEDENCE: CRYSTALLIZATION OF IGF-1
ETITLE DEFEDENCE: DISCORT
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Best Local
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Best Local Similarity
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ORGANISM: Homo sapiens
-09-858-935B-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Dubaquie, Yves
APPLICANT: Filvaroff, Ellen
APPLICANT: Lowman, Henry B.
TITLE OF INVENTION: METHOD FOR TREATING CARTILAGE DISORDERS
FILS REFERENCE: P1794R1
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26; Conserv
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100.0%;
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100.0%; Pred. No. 4.7e-18;
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Pred. No. 4.7e-11
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RESULT 10
US-10-136-639-1
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-066-009A-1
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                                     ; ORGANISM: Homo sapiens
US-10-136-841-7
                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/136,841
CURRENT FILING DATE: 2002-08-22
PRIOR APPLICATION NUMBER: US 60/287,531
PRIOR FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: US 60/304,609
PRIOR FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: US 60/329,461
PRIOR APPLICATION NUMBER: US 60/329,461
PRIOR FILING DATE: 2001-015
PRIOR APPLICATION NUMBER: US 60/351,276
PRIOR FILING DATE: 2002-01-23
NUMBER OF SEQ ID NOS: 22
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US-10-136-841-7
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                                                                                               SOFTWARE: Pa
SEQ ID NO 7
LENGTH: 70
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Publication No. US20030072761A1
GENERAL INFORMATION:
APPLICANT: LeBowitz, Jonathan
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETING PROTEINS ACROSS THE BLOOD
TITLE OF INVENTION: BARRIER
FILE REFERENCE: SYM-008
CURRENT APPLICATION NUMBER: US/10/136,639
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 60/329,650
PRIOR APPLICATION NUMBER: US 60/329,650
PRIOR FILING DATE: 2001-10-16
NUMBER OF SEQ ID NOS: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7, Application US/10136841 Publication No. US20030082176A1 GENERAL INFORMATION:
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Best Local Similarity 100.
26; Conservative
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LENGTH: 70
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Best Local
Query Match
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APPLICANT: Beverley, Stephen
TITLE OF INVENTION: SUBCELLULAR TARGETING OF THERAPEUTIC PROTEINS
FILE REFERENCE: SYM-007
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                                                                                 TYPE: PRT
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hes 26; Conservative
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100.0%; Pred. No.
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  30.2%;
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  Score 26;
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  14;
  Length 70;
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36 RRAPOTGIVDECCERSCOLRRLEMYC 61

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APPLICANT: LOWMAN, Henry
ITITE OF INVENTION: PROTEIN VARIANTS
ITITE REFERENCE: PITIZIAT
CURRENT APPLICATION NUMBER: US/10/444,326
CURRENT FILING DATE: 2003-05-22
PRIOR APPLICATION NUMBER: US/99/723,866
PRIOR FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: US/99/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 1
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CURRENT APPLICATION NUMBER: US/10/272,531A
CURRENT FILING DATE: 2002-10-16
PRIOR APPLICATION NUMBER: US 60/384,452
PRIOR FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: US 60/386,019
PRIOR APPLING DATE: 2002-06-05
PRIOR APPLICATION NUMBER: US 60/408,816
PRIOR APPLICATION NUMBER: US 60/408,816
PRIOR FILING DATE: 2002-09-06
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                                                                                                          ; ORGANISM: Homo sapiens
US-10-272-531A-7
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                                                                                                                                                                            NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn ve
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7, Application US/10272531A
Publication No. US2004005309A1
GENERAL INFORMATION:
APPLICANT: LeBowitz, Jonathan H
APPLICANT: Beverley, Stephen
APPLICANT: Sly, William S.
TITLE OF INVENTION: TARGETED THERAPEUTIC PROTEINS
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Matches 26; Conserva
                                                      Query Match
Best Local
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Best Local Similarity
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ORGANISM: Homo sapiens
                                                                                                                                               LENGTH: 7
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11 RRAPOTGIVDECCFRSCDLRRLEMYC 36
                                    26;
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                                  ; Score 26; DB
%; Pred. No. 4.7
0; Mismatches
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mismatches 0;
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                                                      DB 15;
. 4.7e-18
                                                                   Length 70;
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RESULT 14 US-10-272-483A-7

Sequence 7, Application US/10272483A Publication No. US20040006008A1 GENERAL INFORMATION:

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                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-444-262-1
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Best Local S
Matches 26
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/10444262 Publication No. US20040023883A1 GENERAL INFORMATION:
                                                                                                                                                                                                     SEQ ID NO 1
LENGTH: 70
                                                               Matches
                                                                                                    Query Match
                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US/09/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                       APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
TITLE OF INVENTION: FROTEIN VARIANTS
FILE REFERENCE: P1712R1
CURRENT APPLICATION NUMBER: US/10/444,262
CURRENT FILING DATE: 2003-05-22
PRIOR APPLICATION NUMBER: US/09/724,478
PRIOR FILING DATE: 2000-11-28
PRIOR FILING DATE: 2000-11-28
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PRIOR FILING DATE: 2002-04-30
PRIOR APPLICATION NUMBER: US 60/384,452
PRIOR FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: US 60/386,019
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CURRENT APPLICATION NUMBER: US/10/272,483A
CURRENT FILING DATE: 2002-10-16
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TITLE OF INVENTION: TARGETED THERAPEUTIC PROTBINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: LeBowitz, Jonathan H
APPLICANT: Beverley, Stephen
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PRIOR FILING DATE: 2001-04-30
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ORGANISM: Homo sapiens
                                                                                  Local Similarity
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FILING DATE: 2001-10-15
APPLICATION NUMBER: US 60/351,276
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 60/386,019 FILING DATE: 2002-06-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2001-07-
11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
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26; Conservative
                                                          30.2%; Score 26; DB 16; ilarity 100.0%; Pred. No. 4.7e-18; Conservative 0; Mismatches 0;
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100.0%; Pred. No. 4.7e-18;
tive 0; Mismatches 0;
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Sequence 14, Application US/09852261 Patent No. US20020083477A1 GENERAL INFORMATION:

APPLICANT: GOLDSPINK, GEOFFREY

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FILE REFERENCE: ETH 107 CIP (2)
CURRENT APPLICATION UMBER: US/10/323,046
CURRENT FILING DATE: 2002-12-17
PRIOR APPLICATION NUMBER: 09/141,153
PRIOR FILING DATE: 198-08-27
NUMBER OF SEQ ID NOS: 43
SOFTMARE: Patentin Ver. 3.1
SOFTMARE: 91
TUDE: """
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RESULT 18
US-09-852-261-14
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APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REPERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
NUMBER OF SEQ ID NOS: 14
                                                                                                                                                                                                                                                  SEQ ID NO 10
LENGTH: 105
TYPE: PRT
                                                                                                                           Query Match
Best Local Similarity
Thes 26; Conserv
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Publication No
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Best Local
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APPLICANT: Schense, Jason C
APPLICANT: Sakiyama-Elbert, Shelly B
TITLE OF INVENTION: Growth Factor Modified Protein
TITLE OF INVENTION: Engineering
                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial sequence
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                                                                    36 RRAPOTGIVDECCFRSCDLRRLEMYC
                                                                                                        11 RRAPOTGIVDECCFRSCDLRRLEMYC 36
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vo. US20030187232A1
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se, Jason C
                                                                                                                                                            30.2%; Score 26; DB 9; I 100.0%; Pred. No. 6.5e-18;
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Pred. No. 5.8e-18;
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Sequence 2, Application US/09852261
Patent No. US20020083477A1
GENERAL INFORMATION:
APPLICANT: TERENCHI, GEOFFREY
APPLICANT: TERENCHI, GEOFFREY
APPLICANT: TERENCHI, GEOFFREY
APPLICANT: TERENCHI, GEOFFREY
APPLICATION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF GROUND TO NOCE 14
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; TYPE: PRT
; ORGANISM: Oryctolagus cuniculus
US-09-852-261-14
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US-10-238-114-3
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Best Local
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TITLE OF INVENTION: IGF-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE RE
FILE REFERENCE: 454313-3165.1
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT FILING DATE: 2002-09-10
PRIOR APPLICATION NUMBER: FR 01 11736
PRIOR APPLICATION NUMBER: US 60/318,666
PRIOR FILING DATE: 2001-09-12
PRIOR FILING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 20
NUMBER OF SEQ ID NOS: 20
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PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
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CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
                     SOFTWARE: PatentIn Ver. 2.1 EQ ID NO 2
                                                               NUMBER OF SEQ ID NOS: 14
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US-09-852-261-6
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US-09-852-261-2
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US-10-179-046-14
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APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 26; Conservative
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Publication No. US20030013154A1
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LENGTH: 111
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Patent No. US20020083477A1
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CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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                                                        ZIP: 94608

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/10/179,046
FILING DATE: 25-Jun-2002
CLASSIFICATION: CUnknown>
                                                                                                                                                                                                                                                                                                                     NUMBER OF SECTION STREETS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Chirch Corporation
ADDRESSEE: ARAB Horton Street
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/029,267
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Pichia Secretory Leader for Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Crawford, Kenneth
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                                                                                                                                                                                                                                                                   COUNTRY: United States
                                                                                                                                                                                                                                                                                           STATE: California
                                                                                                                                                                                                                                                                                                          CITY: Emeryville
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Innis, Michael
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100.0%; Pred. No. 6.8e-18;
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ATTORNEY/AGENT INFORMATION:

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US-09-919-497-74
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US-10-251-661-8
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Matches
                                                                                                                                                                                             Sequence 74, Application US/09919497 Patent No. US20020106662A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 8
APPLICANT: Mutter, George L.
TITLE OF INVENTION: PROGNOSTIC CLASSIFICATION
FILE REFERENCE: B0801/725
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
PRIOR APPLICATION NUMBER: US 60/221,735
PRIOR FILING DATE: 2000-07-31
NUMBER OF SEQ ID NOS: 100
SOPTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/251,661
CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/193,614
PRIOR FILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: PCT/US01/10661
PRIOR APPLICATION NUMBER: PCT/US01/10661
PRIOR FILING DATE: 2001-04-02
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Methods and Compositions for Regulating TITLE OF INVENTION: Memory Consolidation FILE REFERENCE: 3499.1001-003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Alberini, Cristina M. APPLICANT: Bear, Mark F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-2704
TELEPAX: (510) 655-3542
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                 11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Chung, Ling-Fong
REGISTRATION NUMBER: 36,482
REFERENCE/DOCKET NUMBER: 1165.100
                                                                                                                                                                                                                                                                                                                                                       RRAPOTGIVDECCFRSCDLRRLEMYC 93
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TYPE: amino acid
STRANDEDNESS: single
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100.0%; Pred. No. 8.1e-18;
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Search completed: March Job time: 34 secs
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; LENGTH: 153
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-919-497-74
                                                                                                                                                                                                                                  ; LENGTH: 153
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-136-639-3
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US-10-136-639-3
                                                                                                                                                     Query Match
Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/10136639
Publication No. US20030072761A1
GENERAL INFORMATION:
APPLICANT: LeBowitz, Jonathan
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETING PROTEINS ACROSS THE BLOOD:
TITLE OF INVENTION: BARRIER
FILE REFERENCE: SYM-008
CURRENT APPLICATION NUMBER: US/10/136,639
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 60/329,650
PRIOR APPLICATION NUMBER: US 60/329,650
PRIOR FILING DATE: 2001-10-16
NUMBER OF SEQ ID NOS: 4
SOPTWARE: Patentin version 3.0
SEQ ID NO 3.
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Best Local Similarity 100.0%;
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                    3, 2004, 12:08:10
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Run 8

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Title:
Perfect score:
Sequence:
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Maximum
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length: 2000000000
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Match
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Gapop
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1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/2/iaa/BackfIles1.pep:*

6: /cgn2_6/ptodata/2/iaa/backfIles1.pep:*
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   GenCore version (c) 1993 - 2004
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PCT-US92-09443A-2
US-07-947-035-1
US-07-958-903A-17
US-08-462-018-17
US-08-462-018-17
US-08-462-018-17
US-08-463-224-1
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US-09-477-924-1
US-09-723-981-1
US-09-723-981-1
PCT-US92-09443A-1
PCT-US92-09443A-1
PCT-US92-09443A-1
PCT-US92-09443A-1
PCT-US92-09443A-1
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PCT-US93-11458-1
PCT-US93-08-460-9714A-47
US-08-460-9714A-47
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US-08-460-9714A-47
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Sequence
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5.5470721
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10, Appl
11, Appl
12, Appl
12, Appl
13, Appl
14, Appl
15, Appl
16, Appl
17, Appl
18, Appl
19, Appl
19,
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RESULT 1 5489517-4

Patent No.5489517

APPLICANT: WONG, EDITH; BITTNER, MICHAEL L.

TITLE OF INVENTION: SECRETION OF INSULIN-LIKE GROWTH

ALIGNMENTS

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PCT-US92-09443A-2
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GENERAL INFORMATION:
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COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 50Z or 55SX
COMPUTER: WS-DOS (Version 5.0)
SOTTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/09443A
FILING DATE: 19921103
CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/790,690
FILING DATE: NOVEmber 8, 1991
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 50Z or 55SX
OPERATING SYSTEM: MS-DCS (Version 5.0)
SOTTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/963,329A
FILING DATE: 19921015
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INFORMATION FOR SEQ ID NO:
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PRIOR APPLICATION DATA:
RAPLICATION UNDERS: 07/790,690
FILING DATE: NO. 6310040ember 8, 1
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T
REGISTRATION NUMBER: 30,162
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lewis, Mi
APPLICANT: IQbal, MO
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 67
                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100.
nes 26; Conservative
                                                                                                                                                                                                                           STATE: Massachusetts COUNTRY: U.S.A. ZIP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
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T: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bozyczko-Coyne, Donna
Neff, Nicola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lewis, Michael E.
Iqbal, Mohamed
                                                                                                                                                                                                                                                                                                                             Fish & Richardson
                                                                                                                                                                                                                                                                                                                                                                               TREATING RETINAL NEURONAL DISORDERS BY THE APPLICATION OF INSULIN-LIKE GROWTH FACTORS AND ANALOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30.2%; Score 26;
100.0%; Pred. No.
tive 0; Mismatch
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5e-20;
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RESULT 2 5470721-4 ;Patent No.

5470721

APPLICANT: BUELL, GARY N.; MOVVA, NAAGESWARARAO TITLE OF INVENTION: PRODUCTION OF HUMAN SOMATOMEDIN C NUMBER OF SEQUENCES: 7 CURRENT APPLICATION DATA:

5470721-4

Query Match Best Local Similarity Matches 26; Conserv

Conservative

0

Mismatches

0

Indels

30.2%; Score 26; DB 6; Length 38; 100.0%; Pred. No. 3e-20;

11 RRAPOTGIVDECCFRSCDLRRLEMYC 36

RRAPOTGIVDECCFRSCDLRRLEMYC 29

SEQ ID NO:4:

LENGTH: 38

APPLICATION NUMBER: 965,047
FILING DATE: 21-0CT-1992
APPLICATION NUMBER: 496,086
FILING DATE: 15-MAR-1990
APPLICATION NUMBER: 938,170
FILING DATE: 19-NOV-1986

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/ FILING DATE: 23-JUN-1993

US/08/81,979

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RRAPQTGIVDECCFRSCDLRRLEMYC 27 RRAPOTGIVDECCFRSCDLRRLEMYC 36

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5489517-4

Query Match -- rocal Similarity

Conservative

30.2%; but 100.0%; Pr

Score 26; DB 6; Pred. No. 2.9e-20

Length 36; Indels

Mismatches

SEQ ID NO:4:

LENGTH: 36

ACTOR-I IN E. COLI
NUMBER OF SEQUENCES: 7
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 23-MAY-1991

US/07/704,486

Sequence 2, Application US/07963329A

Patent No. 6310040

GENERAL INFORMATION:
APPLICANT: Bozyczko-Coyne, Donna
APPLICANT: Neff, Nicola
APPLICANT: Lewis, Michael E.
APPLICANT: Lewis, Michael E.
APPLICANT: IQBAI, Mohamed
TITLE OF INVENTION: TREATING RETINA
TITLE OF INVENTION: BY THE APPLICANT
TITLE OF INVENTION: GROWTH FACTORS

NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson

TREATING RETINAL NEURONAL DISORDERS BY THE APPLICATION OF INSULIN-LIKE GROWTH FACTORS AND ANALOGS

RESULT 3 US-07-963-329A-2

APPLICATION NUMBER:

07/963,329

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RESULT 5
US-07-654-611-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Sknottner-Lundin, Anna
APPLICANT: Fryklund, Linda
APPLICANT: Gellerfors, Par
TITLE OF INVENTION: O-Glycosylated IGF-1
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                              NAME: AMEILL.,
REGISTRATION NUMBER: 24,852
REFERENCE/DOCKET NUMBER: 151/
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION
TELECOMMUNICATION INFORMATION INFORMATION
TELECOMMUNICATION INFORMATION INFOR
                                                                    INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 20-AUG-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP
FILING DATE: 17-AUG-1989
ATTORNEY/AGENT INFORMATION:
NAME: Amernick, Burton A.
REGISTRATION UNMFRR: 24 95
REGISTRATION UNMFRR: 24 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 200154
NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIF. 20036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              quence 2, Applic
ent No. 5273966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/07/654,611
FILING DATE: 19910422
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 8819826.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS: Pollock,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: OCTOBER 15, TTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: AMINO ACID
STRANDEDNESS: N/I
TOPOLOGY: N/A
                                                                                                                                                                                               TELEPHONE: (202)331-71:
TELEFAX: (202)223-2596
TELEX: 248587 RING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Clark, Paul T
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
ropology:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch 30.2%; Score 26; DB 5; Similarity 100.0%; Pred. No. 5e-20; 26; Conservative 0; Mismatches
                                      AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/07654611
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/EP89/00972
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LOCATION: (37^38)
OTHER INFORMATION:
FEATURE:
NAME/KEY: Cleavage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:

NAME/KEY: Cleavage-site
LOCATION: (21^22)
OTHER INFORMATION: /note
                        LOCATION: (55°56)
OTHER INFORMATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                            PEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: Binding-s
LOCATION: 29
OTHER INFORMATION:
OTHER INFORMATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                    NAME/KEY: Cleavage-site LOCATION: (36^37)
OTHER INFORMATION: /not.
                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: Cleavage-site LOCATION: (31^32) OTHER INFORMATION: /note
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: Cleavage-site LOCATION: (24^25)
OTHER INFORMATION: /not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: Binding-site LOCATION: 51
OTHER INFORMATION: /not OTHER INFORMATION: site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: Binding-site
LOCATION: 41
OTHER INFORMATION: /note=
OTHER INFORMATION: site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: Binding-site
LOCATION: one-of(33, 34, 3
OTHER INFORMATION: /note=
OTHER INFORMATION: sites"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: Binding-site LOCATION: 4
OTHER INFORMATION: /not OTHER INFORMATION: site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: Protein
LOCATION: 1.70
OTHER INFORMATION:
                                                                                                                                                                LOCATION: (41^42)
OTHER INFORMATION:
                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (29^30)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: Binding-site
                                                                                                     NAME/KEY: Cleavage-site LOCATION: (50^51) OTHER INFORMATION: /note
                                                                          NAME/KEY:
                                                                                                                                                                                 Cleavage-site (41^42)
                                                                                                                                                                                                                                                                                                                                                                                                                               Cleavage-site (29^30)
                                                           Cleavage-site (55^56)
 Cleavage-site (56^57)
                                                                                                                                                                                                                                             Cleavage-site (37^38)
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site"
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                                                                                                                                                                                                                                                                                                                                                   /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "potential glycosylation
                                           "trypsin cleavage site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "potential glycosylation
                                                                                                                                                                                                                          "trypsin cleavage site"
                                                                                                                                                                                                                                                                                       "trypsin cleavage site"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "trypsin cleavage site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "potential glycosylation
                                                                                                     "trypsin
                                                                                                                                                                 "trypsin cleavage site"
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                                                                                                         cleavage site"
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; LOCATION: US-07-654-611-2

NAME/KEY:

Cross-links 47..52

NAME/KEY:

Cross-links

LOCATION:

NAME/KEY:

Cross-links 6..48

LOCATION:

LOCATION: (68^69)
OTHER INFORMATION:

NAME/KEY: Cleavage-site LOCATION: (68^69)

OTHER INFORMATION: NAME/KEY: Cleavage-site LOCATION: (60^61) OTHER INFORMATION:

Query Match
Best Local Similarity
Matches 26; Conserv

07-947-035-1 equence ent No.

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy

TELEPHONE: (919) 881-3175

STRANDEDNESS:

linear

protein single CORRESPONDENCE ADDRESS

ADDRESSEE:

TUMBER OF SEQUENCES:

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TELEFAX: (>1.2,
TELEX: 575102
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
'ENGTH: 70 amino acids
                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/947,035
FILING DATE: 17-SEP-1992
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Sibley, Kenneth D.
REGISTRATION NUMBER: 31,665
REFERENCE/DOCKET NUMBER: 3175-59
TELEPHONE: (919) 881-3140
TELEPHONE: (919) 881-3140
                                                                                                                                                                                                                                                                                                                                                                                                             STREET: F.C. CITY: Charlotte
STATE: No. 5444045th Carolina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PLICANT: McMurty, John P.
PLICANT: Phelps, Patricia V.
TLE OF INVENTION: Method of Administering
TLE OF INVENTION: and Analogs Thereof to B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11 RRAPOTGIVDECCFRSCDLRRLEMYC 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/07947035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Francis, our Paul E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30.2%; Scilarity 100.0%; Proceedings of the Conservative O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ballard, Francis J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kenneth D. Sibley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and Analogs
: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Geoffrey L
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k; Pred. No. 5.20
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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                                                                                                        US-07-958-903A-17
                                                                       Sequence 1
Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 17, App
Patent No. 56124
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Best Local
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/07/776,272
FILING DATE: 19911129
CLASSIFICATION: 530
CLASSIFICATION: 530
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: peptide HYPOTHETICAL: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 31,409
REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Player, William E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RPPLICANT: Kaminuma, Toshihiko
APPLICANT: Iida, Toshii
APPLICANT: Tajima, Masahiro
TITLE OF INVENTION: Process for Purification of Polypeptide
                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Player, William REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: District of Columbia COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE:
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                                                      INFORMATION:
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                                                                                      17, Application US/07958903A
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                                                                                                                                                                                                                                                                   Similarity
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GY: linear
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1233 20th St. N.W. P.O. Box 18218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   202-887-0605
Kauer, James C.
Smith, Kevin R.
                                Lewis, Michael E.
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100.0%; Pred. No. 5.2e-
cive 0; Mismatches
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100.0%; Pred. No. 5.2e-20;
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Best Local S
Matches 26
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-07-958-903A-17
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FILING DATE: June 5,1989
APPLICATION NUMBER: 07/534,139
FILING DATE: June 5,1990
APPLICATION NUMBER: 07/869,913
FILING DATE: APX11 15,1992
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 02655/00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEPHONE: (617) 542-8096
                                                                                                                                                                                                                    atent No. 5703045
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Iqbai, Mohamed
TITLE OF INVENTION: TREATIN
TITLE OF INVENTION: OF INSU
TITLE OF INVENTION: ANALOGS
NUMBER OF SEQUENCES: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 200154
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PS/2 Model 502 or 553X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: MordPerfect (Version 5.1)
CURRENT APPLICATION UNDEER: US/07/958,903A
FILING DATE: October 7, 1992
CLASSIFICATION: 514
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
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                                                TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                    APPLICANT
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                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino
STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                              ch 30.2%; Score 26; DB 1; Similarity 100.0%; Pred. No. 5.2e-20 26; Conservative 0; Mismatches 0
                                 OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
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225 Franklin Street
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                                                                                                                                 Callison, Katn
Baldino, Frank
                                                                                                                                                                  Kauer, James C.
Smith, Kevin R.
                                                                                                              Neff, Nicola
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                                                                                                 qbal, Mohamed
Fish & Richardson P.C.
                ADDRESS:
                                                                                                                                                                                                         Michael E.
                                              TREATING DISORDERS BY APPLICATION OF INSULIN-LIKE GROWTH FACTORS AND ANALOGS
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                                                                                                                                                 Kathleen V.
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US-08-823-245-17
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Best Local Similarity
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CLASSIFICATION: 435
PRIOR APPLICATION UMBER: 07/
APPLICATION NUMBER: 07/
OCTOBER 7
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INFORMATION FOR SEQ ID NO:
STREET: 22.
STREET: 26.
CITY: BOSTON
STATE: Massachusetts
COUNTRY: U.S.A.
7TP: 02110-2804
                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                   TITLE OF INVENTION:
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM 52 Model 50Z or 555)
OPERATING SYSTEM: MS-DOS (Version 5.
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 07/534,139
FILING DATE: June 5,1990
APPLICATION NUMBER: 07/869,913
FILING DATE: April 15, 1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFORMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
                                                                                                                        CORRESPONDENCE ADDRESS
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CITY: B
STATE:
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APPLICATION NUMBER:
FILING DATE: June !
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REGISTRATION NUMBER: 30,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
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Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                Application US/08823245
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Smith, Kevin R.
Callison, Kathle
Baldino, Frank
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Igbal, Mohamed
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                                                                                          Fish & Richardson
S Franklin Street
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NUMBER: 07/361,595
June 5, 1989
NUMBER: 07/534,139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30.2%; Score 26;
100.0%; Pred. No.
                                                                                                                                                                    TREATING DISORDERS BY APPLICATION OF INSULIN-LIKE GROWTH FACTORS AND
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5.2e-20
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MEDIUM TYPE: 3.5" Di

3: 3.5" Diskette, 1.44 Mb IBM PS/2 Model 50Z or

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US-08-482-271-1
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atent No. 578954
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PAC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                             PPLICANT: Tao,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELECOMMUNICATION INFORMATION: TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                   ORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: June 5, 1990
APPLICATION NUMBER: 07/869,913
FILING DATE: APPLI 15, 1992
APPLICATION NUMBER: 07/958,903
FILING DATE: OCTOBER 7, 1992
TYPORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                 STREET: //-
CTTY: Palo Alto
                                                                                                                                                                                                                                                                                                       UMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/823,245 FILING DATE: March 24, 1997 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: N/A
TOPOLOGY: N/A
                               APPLICATION NUMBER: FILING DATE: 07-JUN
                                                                                                                                                                                                                                                                                                                            TLE OF INVENTION: METHOD OF PRODUCING IGF-1 AND IGFBP-3
TLE OF INVENTION: WITH CORRECT FOLDING AND DISULFIDE BONDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 34
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 07/361,595
FILING DATE: June 6, 1989
APPLICATION NUMBER: 07/534,139
FILING DATE: June 5, 1990
TORNEY/AGENT INFORMATION:
                                                                                                                                                                              COUNTRY: USA
ZIP: 94304-1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
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                                                                                                                                                                                                                                                755 Page Mill Road
                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                               Sommer, Andreas
Ogawa, Yasushi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (617) 542-8906
                                 07-JUN-1995
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                                                  US/08/482,271
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RESULT 12
US-09-080-120A-1
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                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
Sequence 1, Applic
Patent No. 6017885
                                                                                                                                                 Matches
                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 22
TELECOMMUNICATION INFORMATION:
                                                                                                                                    Local c
                                                                                                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                              11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                       36 RRAPOTGIVDECCFRSCDLRRLEMYC 61
                                                                                                                                              n 30.2%; So Similarity 100.0%; F 26; Conservative 0;
              Application US/09080120A
                                                                                                                                                                                                                                                                                                                                          (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                 Freddie K.
                                                                                                                                                                                                                                                                                                                                                                                35,636
                                                                                                                                              Score 26; DB 1; L; Pred. No. 5.2e-20; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                       22095-20284.00
                                                                                                                                                                             Length 70;
                                                                                                                                                 Indels
                                                                                                                                                 0
                                                                                                                                                 Gaps
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                          FILING DATE: 25-MAY-1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/278,456
FILING DATE: 20-JUL-1994
CLASSIFICATION: 514
                                                                 REGISTRATION NUMBER: 39,124
REFERENCE/DOCKET NUMBER: 221
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 514
CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: US 08/806,918
FILING DATE: 26-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
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                                                                                                                NAME: Buffinger, Nich
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 14-MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                     TELEPHONE:
                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/450,258 FILING DATE: 25-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'LE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LICANT: BROMMAGE, ROBERT
LICANT: ROSEN, DAVID M.
LICANT: ADAMS, STEVEN W.
LE OF INVENTION: IGF/IGFBP COMPLEX FOR PROMOTING BONE
LE OF INVENTION: FORMATION AND FOR REGULATING BONE REMODELING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
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: California
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                                                         (650)
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                                                         813-5600
                                                                                                                                   Nicholas
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SEQUENCE CHARACTERISTICS

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NAME/KEY: Disulfide
; LOCATION: 47..52
; OTHER INFORMATION:
; OTHER INFORMATION:
; US-08-432-517-1
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ZIP: 63105-1817

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

COMPARTIE: 118M PC comparable

COMPARTIES: TOTAL PC-DOS/MS-DOS

COUNTRY: USA

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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (314) 727-5188
TELEPAX: (314) 727-6092
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/432
FILING DATE: 01-MAY-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 952:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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ADDRESSEE: ROGERS, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: KHOURI, ROGER K.
TITLE OF INVENTION: METHOD FOR SOFT TISSUE AUGMENTATION
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 18..61
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: 6..48
OTHER INFORMATION:
OTHER INFORMATION:
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STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ch 30.2%; Solidarity 100.0%; For the similarity 100.0%; For the solid state of the solid 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acids
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     30.2%;
100.0%;
                                                                                                                                                                                                      /note= "Disulfide bond between two
cysteines."
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cysteines."
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cysteines."
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;; Pred. No. 5.2e-20;
0; Mismatches 0;
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     Score 26;
Pred. No.
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           DB 3; Length 70; 5.2e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           between two
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                                                                                                                                                                                                                                                                         RESULT 15
US-09-477-924-1
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                                                                                                                                               Sequence 1, Application US/09477924
Patent No. 6403764
GENERAL INFORMATION:
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Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P1712R1-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/790
APPLING DATE: NO. 6310040en
ATTORNEY/AGENT INFORMATION:
NAME. CLAYP
DATA TO DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM ps/2 Model 502 or 555X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
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FITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AME: Clark, Paul T.
EGISTRATION NUMBER: 30,162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITY: Boston
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Sequence 1, Application US/09723896
PATECH NO. 6509443
GENERAL INFORMATION:
APPLICANT: Dubaquie, Yves
APPLICANT: Lowman, Henry
APPLICANT: Lowman, Henry
ITILE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: P1712R1
CURRENT APPLICATION NUMBER: US/09/773,896
CURRENT APPLICATION NUMBER: US/09/773,896
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: US/09/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
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Best Local Similarity
Thes 26; Conserve
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                                                                                                             ; SEQ ID NO 1
; LENGTH: 70
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-723-896-1
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US-09-723-981-1
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TITLE OF INVENTION: PROTEIN VARIANTS
FILE REFERENCE: $1712E1
CURRENT APPLICATION NUMBER: US/09/723,981
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: 09/477,923
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
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LENGTH: 70
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Best Local (
                                                   Matches
                                                                 Query Match
Best Local
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TYPE: PRT
ORGANISM: Homo sapiens
-09-723-981-1
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CURRENT FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 6
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 11 RRAPOTGIVDECCFRSCDLRRLEMYC 36
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                                               30.2%;
ilarity 100.0%;
Conservative
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                                                                  Score 26; DB 4; Pred. No. 5.2e-
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PCT-US93-11458-1
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PCT-US92-09443A-1
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                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                              Query Match
Best Local :
TITLE OF INVENTION: MODIFIED NUMBER OF SEQUENCES: 20 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatibl OPERATING SYSTEM: PC-DOS/M
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PC-DOS/MS-DOS

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Sequence 1, Application
                                        Sequence 1, Application PC/TUS9311458 GENERAL INFORMATION:
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APPLICATION NUMBER: 07/790,690
FILING DATE: NOvember 8, 1991
APPLICATION NUMBER: 07/963,329
FILING DATE: October 15, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
PREPERSONCE/NOMBER: 30,162
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: 200154
INFORMATION FOR SEQ ID NO:
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: Model 50Z or 55SX
COMPUTER: IBM PS/2 Model 50Z or 55SX
COMPUTER: MS-DOS (Version 5./
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lewis, Mi
APPLICANT: 1qba1, MO
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordDerfect (Version 5.1)
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 02.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-8906
TELEPHAX: (617) 542-8906
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CLASSIFICATION:
                                                                                                                                                                                                                                                                    Local Similarity
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TOPOLOGY: N/A
                                                                                                                                                                  36 RRAPOTGIVDECCFRSCDLRRLEMYC 61
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DEDNESS: N/A
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Neff, Nicola
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MODIFIED INSULIN-LIKE GROWTH FACTOR
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RESULT
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: CELTRIX PHARMACEUTICALS, INC.
TITLE OF INVENTION: IGF/IGFBP COMPLEX FOR PROMOTING BONE
TITLE OF INVENTION: FORMATION AND FOR REGULATING BONE REMODELING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 1
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94304-1018

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: PCT/US95/08925

FILING DATE: NEW

CLASSIFICATION.
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Best Local
                                                                                                                                                                                                         TELEX: 706141
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 70 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: PARK, FREDDIE K.
REGISTRATION NUMBER: 35,636
REFERENCE/DOCKET NUMBER: 220
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.25 (BPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/11458
FILING DATE: 24-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: MORKISOM ...
STREET: 755 Page Mill Road
CITY: Palo Alto
STATE: California
21
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                                                                                                                                        Local Similarity
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                                                                                  11 RRAPOTGIVDECCFRSCDLRRLEMYC 36
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Similarity 100.0%; Pred. No. 5.
26; Conservative 0; Mismatches
                                                                                                          30.2%; Score 26; DB 5; ilarity 100.0%; Pred. No. 5.2e-20 Conservative 0; Miamatch--
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linear
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; APPLICANT: BALLARD, FRANCIS J.;WALLACE, JOHN C.;
WELLS, JULIAN R.E.
TITLE OF INVENTION: PEPTIDE ANALOGS OF INSULIN-LIKE GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO:1:
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Best Local Similarity
Matches 26; Conserv
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APPLICANT: WOO, SA
APPLICANT: Smith,
APPLICANT: Cristia
APPLICANT: Gottcha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 08/167,641
FILING DATE: December: 14, 1993
APPLICATION NUMBER: 07/855,389
FILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02725
FILING DATE: March 19, 1993
AFTORNEY/AGENT INFORMATION:
TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 408,518
FILING DATE: 24-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 2
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: PRACESQ for Windows 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette,
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPLICANT: Cristiano, Richard J.
PPLICANT: Gottchalk, Scephen
ITLE OF INVENTION: NUCLEIC ACID TI
TITLE OF INVENTION: METHODS OF USB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: U
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FILING DATE: 17-SEP-1992
                                                       TELEFAX:
                                                                                                                 NAME: Warburg, Richard of REGISTRATION NUMBER: 32, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                   TELEPHONE: (213) 489-160
TELEFAX: (213) 955-0440
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                                                                              489-1600
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                                                                                                                   212/066
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LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-460-890A-47
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US-08-167-641C-47
                                                                                                                                                                 TELEFAX: (213) 955-0440
TELEX: 67-3510
INFORMATION FOR SEQ ID NO: 4'
SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                   Query Match 30.2%; Score 26; DB 3; L
Best Local Similarity 100.0%; Pred. No. 5.7e-20;
Matches 26; Conservative 0; Mismatches 0;
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FILING DATE: December 14, 1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 07/855,389
FILING DATE: March 20, 1992
APPLICATION UNMBER: ECT/US33/02725
FILING DATE: March 19, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION UNMBER: 32,327
REFERENCE/DOCKET NUMBER: 205/012
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                equence 47, Application US/08167641C tent No. 6033884 ENERGY INFORMATION:
                                                                                                                                    TOPOLOGY: 11
MOLECULE TYPE:
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OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: Fast-SEO for Windows 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
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                                                                                                                                                                                                                                                                                     SLECULATION (213)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: Suite 4700
CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 30.2%; Score 26; DB Local Similarity 100.0%; Pred. No. 5. Local Similarity 0, Mismatches 26; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34 RRAPQTGIVDECCFRSCDLRRLEMYC 59
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11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
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Gottchalk, Stephen
VENTION: NUCLEIC ACID
                                                                                                                                                   linear
                                                                                                                                    peptide
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RESULT 25
US-08-462-040-47
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US-08-460-971A-47
                                                                                                                                                                                                                                                    US-08-460-971A-47
                                                                                                                                                                                                                                                                                      TELEX: 67-3510
INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 47, Apr
Sequence 47, Apr
                                                                                                                                                                    Matches
                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: FASCESC for Windows 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/460,971A
FILING DATE: June 5, 1995
CLASSISTICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 07/85,389
FILING DATE: December 14, 1993
APPLICATION NUMBER: 07/85,389
FILING DATE: March 19, 1992
APPLICATION NUMBER: PCT/US93/02725
APPLICATION NUMBER: DCT/US93/02725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 633 new STREET: Suite 4700 CITY: Los Angeles STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND ITTLE OF INVENTION: METHODS OF USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM Compatible OPERATING SYSTEM: IBM P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: 3.5" Diskette, 1.44 Mb MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: U.S.A. ZIP: 90071-2066
                                                                                                                                                                                      Local Similarity
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                                                                                                                   11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
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                                                                                  RRAPOTGIVDECCFRSCDLRRLEMYC 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Warburg, Richard J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cristiano, Richard J. Gottchalk, Stephen
                                                                                                                                                             30.2%; Score 26; DB 3; Liarity 100.0%; Pred. No. 5.7e-20; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                           (213) 955-0440
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                                                                                                                                                                                                                                                                      peptide
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                                                                                                                                                                                                   Length 78;
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Sequence 47, Application US/08462040 Patent No. 6177554 GENERAL INFORMATION:

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APPLICANT:

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APPLICANT: Critician, Richard J.
APPLICANT: Critician, Richard J.
APPLICANT: Gottchalk, Stephen
ITILE OF INVESTION: MCLICIC ACID TRANSPORTER SYSTEMS AND
ITILE OF INVESTION: MCLICIC ACID TRANSPORTER SYSTEMS AND
ITILE OF INVESTION: MCTHOOS OF USE
INDERSOR OF SEQUENCES:
CORRESSENE LYON & LYON
SYREET: Salte 4700
STREET: Salte 4700
STREET: Salte 4700
STREET: SALTE 4700
STREET: SALTE 500H
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Modified Insulin-1 hIGF-I. 3 Peptide d

6 Peptide d
5 Sequence
0 Human Ins
7 Human Ins
9 Recombina
4 Insulin 1
4 Wild type
7 Peptide d
2 Human mat
6 Insulin 1
6 Human ins
6 Human ins
7 Human ins
8 Insulin/1
8 Synthetic
9 Analogue
1 Insulin-1

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Result
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Maximum DB
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Perfect score:
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RESULT 1
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AX AAAC
AX AAAC
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XX Rat;
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                                                                                                                                                                                                                   The present invention relates to use of mechano-growth factor (MGP), an CC Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve CC avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polymucleotide and polypeptide are useful in the cCC manufacture of a medicament for the treatment of a neurological disorder, cCC including a disorder of motoneurones and/or neurodegenerative disorder, cCC e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive cc spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive cc injury that affects motoneurones, motoneurone lesion or nerve damage, an cc injury that affects motoneurones, motoneurone loss associated with aging, caucosomal or sex-linked muscular dystrophy, diabetic neuropathy, cc peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is rat IGF-I isoform MGF MGF is a muscle isoform having except used by companiar, hence also referred as IGF-I Ec. The MGF CC protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 86; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
                                                                                                                                                          Sequence
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Pred. No. 1.7e-82;
; Mismatches 0;
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Similarity

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                                                                                      The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polynucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve avulsion. This sequence represents the rat MGF polypeptide
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growth
reduce
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                                                             Sequence 111 AA;
                                                                                                                                                                                                                                                                                                           Claim 11; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-055585/07.
N-PSDB; AAS16878.
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                                                                                                                                                                                                                                                                                                                                                           insulin-like growth factor-I (IGF-I) isoform known as mechano factor which is encoded by IGF-I exons 4,5,6 and has ability to motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UNIV COLLEGE LONDON.
EAST GRINSTEAD MEDICAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mechano growth factor; MGF; insulin-like growth factor 1; splice variant; cardiant; vasotropic; gene therapy.
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                                                                                                                                                                                                                                                                                                                                             Sequence 111 AA;
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DB; ACF79636.
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      KSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                         KSOPLSTHKKRKLORRRKGSTLEEHK 86
                                                                                                                NKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQ
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Pred. No. 1.7e-82;
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8

1 NKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQ

Query Match Best Local S Matches 61

Similarity

70.9%;

Score 61; Pred. No.

.6e-56;

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Gaps

60 0

Length Indels

61;

Conservative

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ARBSULT 4
AABOUAT 10-A

                                                     The present invention relates to use of mechano-growth factor (MGF), an CC Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a comedicament for the treatment of neurological disorder. The MGF is capable CC of, reducing motoneurone loss by 20% or greater in response to nerve CC avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polynucleotide and polypeptide are useful in the CC manufacture of a medicament for the treatment of a neurological disorder, CC e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive cc poliomyelitis or post-polio syndrome, a disorder caused by exposure to a compliance of trauma, a motoneurone lesion or nerve damage, an CC injury that affects motoneurones, motoneurone loss associated with aging, CC autosomal or sex-linked muscular dystrophy, diabetic neuropathy, cautosomal or sex-linked muscular dystrophy, disease. The CC peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The CC present sequence is alternative version of rat liver-type IGF-I isoform CC (L.IGF-I). The L.IGF-I protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4 and 6. Note: The present sequence is stated as being the same as SEQ ID NO: 12 shown in sequence listing CC (AAE02451) of the specification. However it differs at a single position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mechano-growth factor; neurological disorder; neurodegenerative disorder; amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy; poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease; liver; L.IGF-I.
   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Use of mechano-growth factor, an isoform of Insulin-like Growth capable of reducing motoneurone loss, in the manufacture of a mefor the treatment of neurological disorder.
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                                                                      The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone commanufacture of a medicament for the treatment of a neurological disorder, including a disorder of motoneurone sand/or neurodegenerative disorder, companies and/or neurodegenerative disorder, companies and/or neurodegenerative disorder, companies and/or neurodegenerative disorder, companies and/or neurodegenerative disorder, companies and muscular atrophy, infantile or juvenile muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive composities or post-polio syndrome, a disorder caused by exposure to a covin, motoneurone trauma, a motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composity that affects motoneurones, motoneurone loss associated with aging, composition of neuropathy, composity that affects motoneurone
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Query Match

70.9%;

Score 61; DB 4.

Length 105;

Ouery Match
Ouery Match
Best Local Similarity 100.0%; Pred. No. 3.6e-56;
Matches 61; Conservative 0; Mismatches 0;

Length 105; Indels

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Matches
                                                          The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polynucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve avulsion. This sequence represents the rat insulin-like growth factor I liver-type isoform (L.IGF-I) used in experiments on motoneuron loss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rat; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motorneuron disorder; nerve avulsion; insulin-like growth factor I liver-type isoform; L.IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Use of insulin-like growth factor-I (IGF-I) isoform known as mechano growth factor which is encoded by IGF-I exons 4,5,6 and has ability to reduce motoneurone loss in response to nerve avulsion, to treat nerve
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   Sequence 105 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 9; 65pp; English
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                                                                                                                              Query Match
Best Local S
Matches 61
                                                                                                                                                                                                                                                                                                        The present sequence is the protein sequence of rat liver-specific insulin-like growth factor 1 (IGF-1) C-terminal region. It is encoded by exons 3, 4 and 6 of the ITG-1 gene. The invention relates to a novel IGF-1 splice variant, denoted mechano growth factor, a non-liver type isoform of IGF-1 that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The rat MGF transcript has a 52 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-1 splice variants. The invention provides use of a MGF polypeptide or polynuclectide in the manufacture of a medicament for the prevention or limitation of myocardial damage in response to ischaemia or mechanical overload of the heart by preventing or limiting apoptosis in the myocardium. The MGF polypeptide, polynuclectide or medicament is also useful for administration in response to a heart attack
                                                                                                                                                                                                                                                      Sequence 105 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Use of Mechano Growth Factor polypeptide or polymucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload
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                                                                                                                           ch 70.9%; Sil Similarity 100.0%; 61; Conservative 0;
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      NKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQ
                                                  NKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMYCVRCKPTKSARSIRAQRHTDMPKTQ 60
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                                                                                        The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, comparising the or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a compound for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying an agent compound that regulates the expression of the polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the polynucleotides, a method for poin, a method for identifying a compound which regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain, and a pharmaceutical composition comprising the one or more compound useful in treating spain, and the polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain, spinal segmental nerve injury (Cnumg), chronic constriction the sequence data for this patent did not form part of the printed composition, and the sequence presented is a rat protein (shown in Table 2 of the specification, which is differentially expressed during pain. Note:

The sequence data for this patent did not form part of the printed composition of the printed componities and the expression of the printed componities.
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(FARB )
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal.
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                                                                    ftp.wipo.int/pub/published_pct_sequences
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BAYER AG.
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                                                                                              The present invention describes an isolated peptide capable of acting as a ligand for an antibody with affinity for the C-terminus of mechanocce growth factor (MGF), for use in therapy, where the peptide is not MGF. CC Also described is an isolated peptide for use in therapy comprising the creations, and x8 = any amino acid. X3 and X4 = Lys or Glu, m = 2 or 3, n = 0 creations, and x8 = any amino acid. X3 and X4 = Lys or Glu, m = 2 or 3, n = 0 creations, and p = 2-6. (I) has inotropic and cardiant activities, and can be created in cell signaling. (I) can be used for the manufacture of a composition for the treatment of muscle damage, deterioration or injury. CC particularly damage to skeletal muscle, especially muscular dystrophy or CC damage to cardiac muscle, and to manufacture a composition for the repair creation of muscle or nerve cell lines. The peptides are cused to treat conditions associated with muscle fatigue and/or injury for example during exercise, and to treat muscle deterioration or damage for example after a heart attack. They may be useful to identify agents that composition or inhibit muscle or nerve cells in the scale or inhibit muscle or nerve cells in the vivo and to inhibit composition or inhibit muscle or nerve cells in the vivo and to inhibit composition or inhibit muscle or nerve cells in vivo and to inhibit composition or inhibit muscle or nerve cells in the peptides are insulin growth factor I (IGFI) amino acid sequence, which is given in ccomparison with mouse MGF in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity Matches 40; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New peptides corresponding to the C terminus of creatine kinase have a similar function to mechano-growth factor and are useful to treat muscle damage such as exercise injury, muscular dystrophy and heart attack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ligand; antibody; mechano-growth factor; MGF; inotropic; cardiant; cell_signaling; muscle damage; muscular dystrophy; cardiac muscle
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 1; 21pp; English.
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le fatigue; heart attack.
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; Mismatches 0;
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Query Match Best Local Similarity

36.0%; 100.0%;

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DB 7; Lt 1.7e-24;

Length 127;

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6 YGSSIRRAPQTGIVDECCFRSCDLRRLEMYC 36

YGSSIRRAPQTGIVDECCFRSCDLRRLEMYC

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Sequence

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RESULT 10
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                                                                                                                                                                                                                    The present sequence is the protein sequence of murine insulin-like CG growth factor 1B (IGF-IB). IGF-IB cDNA was used in an example of the method of the invention to generate probes for determination of IGF-IB CC RNA. The method comprises a quantitative hybridisation assay for analysis CC of mRNA in a target nucleic acid (TNA) sample. It involves: (1) contacting a cc immobilising the TNA sample on a solid support; (ii) contacting a cc labeled antisense probe to a first portion of the TNA, and a labelled guantitating the signal portion of the TNA; (iii) detecting and CC guantitating the signals generated from the hybridised probes; and (iv) cd determining the value represented by the antisense probe signal minus the cc sense probe signal, the value being proportional to the amount of mRNA in the TNA sample. In an example of the method, a cDNA clone containing 60 nucleotides from exon 2 and 179 nucleotides from exon 3 of the mouse IGF-I gene was cloned into pGEN-4Z vector. Linearisation of the plasmid with CC polymerase. Linearisation with HindIII allowed transcription of a sense probe of similar length using SP6 polymerase (see ABV76186). The probes corresponded and used to determine IGF-I RNA in mouse hepatocytes and contain the probes and contain the probes are purified and used to determine IGF-I RNA in mouse hepatocytes and contain the probes and contai
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                   Matches
                                                  Query Match
Best Local
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                                                                                                                                                              Sequence
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nucleic acid detection.
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                                                      Similarity
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100.0%; PI
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               Score 31; DB; Pred. No. 1.8
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                   1.8e-24;
hes 0;
                                                                                    DB 6;
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                                                                                    Length 133
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RESULT 11 ADA23374

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                                                                                                                                                                                CC The present invention describes an isolated peptide capable of acting as CC a ligand for an antibody with affinity for the C-terminus of mechanoccy growth factor (MGP), for use in therapy, where the peptide is not MGF. CC Also described is an isolated peptide for use in therapy comprising the sequence (I) (X1)m(X2)n(X3)G(X4)(X5)(X6)(X7)2(X8)p, where X1 = a basic CC residue, X2 and X8 = any amino acid, X3 and X4 = Lys or Gln, X5 = Ser, CC Thr, Ala or pro, X6 = Ile, phe or Leu, X7 = Asp or Gln, m = 2 or 3, n = 0 cc. 2, and p = 2-6. (I) has inotropic and cardiant activities, and can be CC used in cell signaling. (I) can be used for the manufacture of a CC composition for the treatment of muscle damage, deterioration or injury, CC particularly damage to skeletal muscle, especially muscular dystrophy or CC damage to cardiac muscle, and to manufacture a composition for the repair CC damage or loss of nerve cells. The peptide can be used in cell culture CC used to treat conditions associated with muscle fatigue and/or injury for CC example during exercise, and to treat muscle deterioration or damage for CC example after a heart attack. They may be useful to identify agents that CC potentiate or inhibit muscle or nerve cell growth, as a treatment to promote growth or repair of muscle or nerve cells in vivo and to inhibit CC amino acid sequence, which is given in comparison with mouse insulin CC growth factor 1 (IGF1) in the exemplification of the present invention.
                                                                             Matches
                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 1; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptides corresponding to the C terminus of creatine kinase have similar function to mechano-growth factor and are useful to treat mus damage such as exercise injury, muscular dystrophy and heart attack damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ligand; antibody; mechano-growth factor; MGF; inotropic; cardiant; cell signaling; muscle damage; muscular dystrophy; cardiac muscle damage; muscle fatigue; heart attack.
                                                                                                                                                     Sequence 133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2003; 2003WO-GB000657.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2002; 2002GB-00003552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-679637/64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA23374 standard; protein; 133
53
                                    6 YGSSIRRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BEAUMONT N.
                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid sequence
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                                                                 36.0%; Er
100.0%; Pr
                                                                         Score 31; DB 7; Li
Pred. No. 1.8e-24;
0; Mismatches 0;
                                                                                                              Length 133;
                                                                           Gaps
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RESULT

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6 YGSSIRRAPOTGIVDECCFRSCDLRRLEMYC 36

Query Match Best Local & Matches 3:

Similarity

36.0%; Score 31; 100.0%; Pred. No.

DB 7; 2e-24;

Length 153

Conservative

Mismatches

0

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Gaps

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ADD47095
XX ADD4
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PF 114-J
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PR 26-J
XX WPI
DR WPI
PR 26-J
XX WPI
DR WPI
PR 26-J
XX WPI
DR WPI
PR 26-J
XX WPI
CC COM

                                                                                                 The invention discloses a composition comprising two or more isolated rat CC or human polynucleotides or a polynucleotide which represents a fragment, CC derivative or allelic variation of the nucleic acid sequence. Also CC claimed are a vector comprising the novel polynucleotide, a host cell CC comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a CC that is differentially expressed in neuronal tissue of a first animal CC that is differentially expressed in neuronal tissue of a first animal CC expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound which regulates the expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound to remain an animal of one or more of the polypeptides given in the ccapacitication, a method for identifying a compound useful in treating capacification, a method for identifying a compound useful in treating capacification, a method for identifying a compound useful in treating capacification, a method for identifying a compound useful in treating capacification, a method for identifying a compound useful in treating capacification, a method for identifying a compound that the composition comprising the one or more composition composition composition of the polymental continuous continuous composition composition composition on the compound that the continuous continuous continuous composition composition composition construction continuous con
    Sequence 153
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rat Protein AAA41387,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENBANK; AAA41387.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-268312/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Woolf C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003016475-A2
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                                                                            ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-AUG-2002; 2002WO-US025765
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BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 12783
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AAPBO433
JD AAPBO433
JD AAPBO433
JD AAPBO433
AC AAPBO4
RESULT 14
AAP60718
ID AAP60
XX AAP60
XX AAP60
XX CAAP60
XX CAAP60
XX SOMAT
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Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The synthetic dsDNA encoding this portion of IGF-I was ligated to synthetic dsDNA encoding the N-terminal portion. A synthetic DNA sequence encoding the lamb or ompF signal sequence can be operatively joined, using, e.g. ligase to a DNA sequence encoding IGF-I Expression vectors contg. the synthetic gene are then used to transform Gram negative host cells such as E. coli. The lamb and ompF signal sequences provide for site-specific release of the signal sequence from the IGF-I protein so that the IGF-I protein can be released into and accumulate at relatively high levels in the periphlasmic space of selected bacteria. (Updated on 09-JAN-2003 to add missing OS field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JAN-2003
14-SEP-1990
                           Synthetic sequence of C-terminal end (fragment somatomedin C (SMC) on pLc24muSMC_ori.
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                                                                                                                                                                                                           AAP60718 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Producing insulin-like growth factor-I in Gram-negative bacteria - using a gene comprising DNA encoding a lam b or omp f signal sequence linked to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-1987;
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                                                                                                        22-JUL-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-APR-1988;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 30.2%; l Similarity 100.0%; 26; Conservative
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                                                                                                                                                                                                                                                                                                                                         RRAPQTGIVDECCFRSCDLRRLEMYC 27
                                                                                                                                                                                                                                                                                                                                                                                     RRAPOTGIVDECCFRSCDLRRLEMYC 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
(first entry)
                                                                                                        (first entry)
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                                                                                                                                                                                                           protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 26;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                            19;
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                                                      of human
                                                         f-met-
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RESULT 15
AAP90515
ID AAP90515
AC AAP90
XX AP90
XX Deriv
XX Insul
KW disul
KW disul
KW disul
KW disul
FT Disul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 26; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 38 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The easily assayable polypeptide is e.g. beta-galactosidase, galactokinase or drug resistance markers. In a pref. system sequence codes for an SMC-like polypeptide and is selected finserts of plc24muSMC1 through plc24muSMC10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Optical prodn. of polypeptide esp. somatomedin C - replacing portion of -terminal end of DNA sequence encoding easily assayable polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1986-278823/42
N-PSDB; AAN60677.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Buell G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-OCT-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W08605810-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hormone; growth
                       Misc-difference
                                           Disulfide-bond
                                                                                     Disulfide-bond
                                                                                                             Disulfide-bond
                                                                                                                                Disulfide-bond
                                                                                                                                                                                      Unidentified.
                                                                                                                                                                                                          disulpide
                                                                                                                                                                                                                                           Derivative of
                                                                                                                                                                                                                                                               25-MAR-2003
06-JUN-1990
                                                                                                                                                                                                                                                                                                 AAP90515;
                                                                                                                                                                                                                                                                                                                      AAP90515 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example; Fig 2; 38pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAR-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAR-1986;
                                                                 Disulfide-bond
                                                                                                                                                      Disulfide-bond
                                                                                                                                                                                                                      Insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BIOJ ) BIOGEN NV.
                                                                                                                                                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                                                                                                         RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Movva N;
                                                                                                                                                                                                          bond
                                                                                                                                                                                                                                                                                                                                                                                                                    30.2%; So ilarity 100.0%; E Conservative 0;
                                                                                                                                                                                                                    growth factor-1; IGF-1;
                                                                                                                                                                                                                                                               (revised)
(first entry)
                                                                                                                                                                                                                                         insulin-like growth factor-1
                                                                                                          /note=
47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       85GB-00007833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86WO-US000579
          62
/label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stimulator; expression
                                                                                                                                                                Location/Qualifiers
                                 note=
                                                        note=
                                                                           note=
                                                                                                  note=
                                                                                                                                          note=
                                                                                                                      "Bonded
 "Ala-NH2 or Ala-OH"
                                                                                                  "Bonded
                                                                                                                                           "bonded
                                 "Bonded
                                                     "Bonded
                                                                            "Bonded
           OTHER
                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 26;
Pred. No.
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                                 to
                                                                           to Cys-52'
                                                                                                                     to Cys-61"
                                                                                                                                          to Cys-47"
                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                Сув-18"
                                                     Cys-48"
                                                                                                 Сув-6"
                                                                                                                                                                                                                                                                                                                                                                            29
                                                                                                                                                                                                                     growth
                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
1.2e-
                                                                                                                                                                                                                                                                                                                                                                                                                                 .2e-19;
                                                                                                                                                                                                                                           (IGF-1).
                                                                                                                                                                                                                      promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                      tissue restoration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  from
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the
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RESULT 16
AAR36847
ID AAR36
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Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       It is synthesised by amino acid condensation. Its functional groups concerned in the reaction are protected, and each protecting gp. is removed after the reaction. Disulphide bridging is made between Cys residues by oxidation. It is useful as a growth promoter and tissue restoration agent. It does not have insulin-like activity. (Updated -MAR-2003 to correct PA field.)
Use of IGF-I or IGF-II or their functional derivs. - disorders characterised by death and/or dysfunction (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-MAR-1989
                                                                                                 08-NOV-1991;
15-OCT-1992;
                                                                                                                                 03-NOV-1992;
                                                                                                                                                                                                                                    injury; ageing; disease; photodegeneration; trauma; axotomy; neurotoxic-excitatory degeneration; diabetic retinopathy; ischemic neuronal degeneration; inherited retinal dystrophy; Alzheimer's disease; infantile malignant osteopetrosis; cholestasis;
                                                                                                                                                                                                                                                                                                                                                                                    AAR36847 standard; peptide; 67 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 62 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 1; 11pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New insulin-like growth factor-1 derivs. - obtd. by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP01063597-A
                                 WPI; 1993-167389/20
                                                       Bozyczko-Coyne
                                                                                                                                                         13-MAY-1993.
                                                                                                                                                                              WO9308826-A1
                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                         ceroid-lipofuscosis.
                                                                                                                                                                                                                                                                                 IGF-I; disorder; treatment; survival; retinal neuronal cells;
                                                                                                                                                                                                                                                                                                       Insulin-like growth factor-I functional derivative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SUMU ) SUMITOMO SEIYAKU
                                                                            (CEPH-) CEPHALON
                                                                                                                                                                                                                                                                                                                                                                                                                                            36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            RRAPOTGIVDECCFRSCDLRRLEMYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             units
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(first en
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                                                                                                  91US-00790690
92US-00963329
                                                                                                                                  92WO-US009443
                                                       Neff N,
                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30.2%;
                                                       Lewis ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 26;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                       Iqbal
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    for treating
of retinal cells

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                                                                                                                                                                                                                                                                                 promotion;
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th
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
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RESULT 17
AAY51168
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AX
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Best Local
                                                    This invention describes a novel engineered fungal strain of human insulin-like growth factor-1 and a process for preparing human insulin-like growth factor-1 with the fungus. The engineered fungus is a beer yeast cell, which contains the gene sequence of human insulin-like growth factor-1, which is able to encode 69 amino acids. The 5' end of the gene sequence is connected with an alpha-factor leading peptide sequence, before which a Kozak order is fused. It is then cloned to a position downstream of an ethanol dehydrogenase promoter to form the expression carrier. Finally, beer yeast cells are transformed to obtain the genetic engineered fungus strain BJ-IGF-1, which can secrete human insulin-like growth factor-1. This sequence represents a protein used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence is that of a functional derivative of human insulin-like growth factor (IGF)-I which promotes the survival of retinal neuronal cells. It can be used for the treatment of retinal neuronal tissues which are suffering from the effects of injury, ageing and/or disease such as photodegeneration, trauma, axotomy, neurotoxic-excitatory degeneration, ischemic neuronal degeneration, inherited retinal dystrophy, diabetic retinopathy, Alzheimer's disease, infantile malignant osteopetrosis, ceroid lipofuscosis or cholestasis. (Updated on 25-MAR-2003 to correct PN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Insulin-like growth factor-1 bacterial expression system preparation of insulin-like growth factor-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY51168 standard; protein; 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAZ44266.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Insulin-like growth factor-1; yeast; human; alpha-factor;
ethanol dehydrogenase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq ID 2 used in the isolation of insulin-like growth factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY51168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 2; 23pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-087760/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Huang L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 50; 97pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RRAPOTGIVDECCFRSCDLRRLEMYC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₿
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2; Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and method for
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Sequence 69

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RESULT 19
AAP71539
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XX Seque
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Matches 26
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Best Local :
                     25-MAR-2003
10-MAR-2003
26-MAY-1991
                                                                                                                                                                                                                                        The inventors claim a DNA construct which comprises AAN40026 or AAN40027. The DNA constructs are stably replicated in yeasts in which prepolypeptides form in high yield. The yeast cells are then able to process the pre-forms to the mature IGF. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                        WPI; 1984-271223/44.
N-PSDB; AAN40026.
                                                                                                                                                                                                                                                                                                                         Prodn. of human insulin-like growth utilising yeast transformant.
Sequence of
                                                               AAP71539;
                                                                                   AAP71539 standard;
                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                      Disclosure; Page 23; 24pp; English
                                                                                                                                                                                                                                                                                                                                                                                          Barr
                                                                                                                                                                                                                                                                                                                                                                                                                                  25-APR-1983;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2003
02-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yeast expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAP40034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAP40034 standard;
                                                                                                                                                                                                                                                                                                                                                                                                            (CHIR ) CHIRON CORP.
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                                                                                                                                      36
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                                                                                                                                                                             26;
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                                                                                                                                                                                        Similarity
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                                                                                                                                                      RRAPQTGIVDECCFRSCDLRRLEMYC
                                                                                                                                      RRAPOTGIVDECCFRSCDLRRLEMYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RRAPQTGIVDECCFRSCDLRRLEMYC
                                                                                                                                                                                                                                                                                                                                                                                       Merryweath
                                                                                                                                                                           30.2%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                       Å
 human insulin-like growth factor I (IGF-I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human insulin-like growth factor I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30.2%;
llarity 100.0%;
Conservative (
                     (revised)
(revised)
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(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       84EP-00104175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vector; somatic growth; growth promoter
                                                                                   protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
                                                                                                                                                                                                                                                                                                                                                                                        ď,
                                                                                                                                                                                                                                                                                                                                                                                          Mullenbach
                                                                                                                                                                             Score 26; DB; Pred. No. 1.9
                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 26;
Pred. No.
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                                                                                                                                      61
                                                                                                                                                          36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                        factors
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                                                                                                                                                                                                                                                                                                                                                                                           Urdea
                                                                                                                                                                                         .9e-1
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                                                                                                                                                                                                                                                                                                                                      λĄ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 69,
                                                                                                                                                                                                 Length 70;
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                                                                                                                                                                                                                                                                                                                                      DNA recombinant method,
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                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                         RESULT 20
AAP70414
    B
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                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disulfide-bond
Disulfide-bond
Disulfide-bond
                                                                                                                                                                                                                                                                                                                                                                                                                   THE LUY-I (and its salts) has strong effect for acceleration of thymidine incorporation into animal cells, suggesting that it has strong growth promoting effect. However it has no blood sugar lowering effect. (Updated on 10-MAR-2003 to add missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                          Hormone; sanatomedin.
                                                                                                                                                                                       Sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human insulin-growth factor, which has a new prim. structure by oxidising reduced form IGF-I and treating the obtd. cpds. chromatography, and is used for incorporating thymidine.
             WPI; 1987-273817/39
                                                                                               20-AUG-1987.
                                                                                                                   JP62190199-A
                                                                                                                                      Homo sapiens
                                                                                                                                                                               type).
                                                                                                                                                                                                             25-MAR-2003
19-FEB-1991
                                                                                                                                                                                                                                            AAP70414;
                                                                                                                                                                                                                                                                AAP70414
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Page 1; 6pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1987-246982/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JAN-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JUL-1987
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                                                     14-FEB-1986;
                                                                          14-FEB-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (FUJI ) FUJISAWA PHARM CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-JAN-1986;
                                  (FUJI ) FUJISAWA PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                  11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                                                                                                                                                                                                                                                                                                            Similarity
26; Conser
                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                  RRAPOTGIVDECCERSCOLRRLEMYC
                                                                                                                                                                                         oxidative human
                                                                                                                                                                                                                                                                                                                                                          30.2%; ilarity 100.0%; Conservative
                                                                                                                                                                                                            (revised)
(first entry)
                                                      86JP-00031512.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   promoter
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .47
                                                                                                                                                                                                                                                               protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Japanese.
                                  ဗ
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                                                                                                                                                                                                                                                                                                                                                          Score 26; DB 1; L
Pred. No. 1.9e-19;
0; Mismatches 0;
                                                                                                                                                                                         insulin-like
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                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                        growth
                                                                                                                                                                                                                                                                                                                                                                             Length 70,
                                                                                                                                                                                         factor
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                                                                                                                                                                                         (IGF-I)
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Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The production of IGF-I-A by oxidising reductive human insuling growth factor in a buffer soln. and separating I-A from the resoln, is improved by the presence of an organic solvent which dissolve in the buffer soln, in the reaction of the buffer soln.
                                                                       It is a synthetic polypeptide analogue of hIGF-I called IGF122 or Analogue B. Analogue B retains nearly full activity at the type I IGF receptor but does not bind to serum components. It is considerably more active than wild-type hIGF-I It is highly active as an agent to increase the yield and efficiency of milk prodn. esp. in cows. It is also used as a growth promotent, to promote wound healing and to stimulate erythropoiesis. It is produced by chemical synthesis or recombinant DNA techniques using IGF-I DNA sequences prepd. synthetically, chromosomally or by recombinant DNA techniques, to transform bacterial, yeast or tissue culture cell lines. A synthetic gene for Analogue B is claimed in Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human insulin like growth factor I prodn. - by oxidising reductive human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1989-095235/13.
N-PSDB; AAN90689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic lactation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human insulin-like growth factor analogues - have higher activity due or reduced affinity for serum components while retaining affinity to type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP309050-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP93366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAP93366 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Applebaum JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MERI ) MERCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAR-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Analogue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              olve in the buffer soln, in the reaction system. to correct PA field.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RRAPQTGIVDECCFRSCDLRRLEMYC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RRAPOTGIVDECCERSCDIRRIEMYC 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 935; 6pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IGF122 of human insulin-like growth factor-I (hIGF-I)
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enhancer;
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                                                                                                                                                                                                                                                                                                                                                                             Page
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   & CO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bayne ML,
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                                                                                                                                                                                                                                                                                                                                                                             ?; 27pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             growth promoter; wound healing; erythropoiesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    factor.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 70
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-A from the reaction
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Query Match

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RESULT 23
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RESULT 22
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                                                                                                                                                                                                                                                                              It is a synthetic polypeptide analogue of hIGF-I called IGF252 or Analogue D. Analogue D retains nearly full activity at the type I IGF receptor but does not bind to serum components. It is considerably more active than wild-type hIGF-I. It is highly active as an agent to increase the yield and efficiency of milk prodn. esp. in cows. It is also used as a growth promotant, to promote wound healing and to stimulate erythropoiesis. It is produced by chemical synthesis or recombinant DNA techniques using IGF-I DNA sequences prepd. synthetically, chromosomally or by recombinant DNA techniques, to transform bacterial, yeast or tissue culture cell lines. A synthetic gene for Analogue D is claimed in Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic gene; hum 
lactation enhancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JUL-1990
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                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human insulin-like reduced affinity fo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Analogue IGF252 of human insulin-like
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1988;
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36 RRAPOTGIVDECCFRSCDLRRLEMYC
                                               11
                                                                                                  Similarity
26; Conserv
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Pred. No.
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                                                                                                     Mismatches
61
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                                                                                                                                                          DB 1;
                                                                                                                                 .9e-
                                                                                                                                                     Length 70
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RESULT 24
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 It is a synthetic polypeptide analogue of hIGF-I called IGF130 or Analogue C. Analogue C retains nearly full activity at the type I IGF receptor but does not bind to serum components. It is considerably more active than wild-type hIGF-I. It is highly active as an agent to increase the yield and efficiency of milk prodn. esp. in cows. It is also used as a growth promotant, to promote wound healing and to stimulate erythropoiesis. It is produced by chemical synthesis or recombinant DNA techniques using IGF-I DNA sequences prepd. synthetically, chromosomally or by recombinant DNA techniques, to transform bacterial, yeast or tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic gene; human insul lactation enhancer; growth
                                                                                                                                                                                                                                                                                                            25-MAR-2003
06-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                            AAP91502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human insulin-like growth factor analogues - have higher activity due to reduced affinity for serum components while retaining affinity to type I
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  Disulfide-bond
                                                                                                                                                                             Insulin-like growth factor-I; IGF-I; derivative; disulphide bond;
growth promoter; tissue repair.
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP91502 standard; peptide; 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                culture cell lines. A synthetic gene for Analogue C is claimed in Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
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                                                       Disulfide-bond
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                                                                                                                                                                                                                                                        insulin-like growth factor-1 (IGF-I) deriv.
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(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87US-00099367
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                                                       Location/Qualifiers
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                              "Bonded to Cys-47"
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Pred. No. 1.9e-19;
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RESULT 25
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Best Local S
Matches 26
                                                                                                                                                                                                                                                                                                                                   The deriv. or salt is produced by oxidation of the AAP91502. IGF-I deriv. has growth promotion action only. It is used as a medical compsn. for promoting growth or repairing tissue. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                        09-JAN-2003
10-APR-1991
                                                                                                                                                                                                                                                                                                                                                                                              New insulin-like growth factor-I deriv. - specific peptide, used as medical compsn. repairing tissue.
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                                                           Misc-difference
                                                                                                     Bos taurus
                                                                                                                     Bovine somatotopin C; milk production;
                                                                                                                                       Modified mammalian somatomedin C containing metal-chelating
                                                                                                                                                                                  AAR10586;
                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 1; 8pp; Japanese
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-SEP-1987;
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               23-JAN-1991
                                EP409814-A
                                                                           Misc-difference
                                                                                                                                                                                                   AAR10586
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                                                                                                                                                                                                                                                                                l Similarity
26; Conser
                                                                                                                                                                                                                                                                                                                 70 AA;
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                                                                                                                                                                                                                                                              RRAPOTGIVDECCERSCDLRRLEMYC 36
                                                                                                                                                                                                  standard; protein;
                                                                                                                                                                                                                                                                              30.2%; Score 26; DB 1; larity 100.0%; Pred. No. 1.9e-Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cys-18"
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                                                  His
                                                                  BTH
                                                                                                                     dairy cows
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es 0;
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                                                                                                                                                                                                                                                                                                Length 70;
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                                                                                                                                       sequence.
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16-JUL-1990;

90EP-00870109

21-JUL-1989;

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Search completed: March 3, 2004, 12:01:19 Job time: 55 secs
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                                                                                                                                      Query Match 30.2%; Score 26; DB 2; Length 70; Best Local Similarity 100.0%; Pred. No. 1.9e-19; Matches 26; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                             The two mutations introduce a metal-chelating sequence to the stomatomedin, enhancing the proteins ability to bind to immobilised-metal affinity matrix, useful in fractionating the variant proteins. DNA encoding the sequence is also claimed but not given in the specification. Wild type sequence was obtained from the International Journal of Peptide and Protein Resources 36(4)356-61. (Updated on 09-JAN-2003 to add missing OS field.)
                                                                                                                                                                                                             Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                           Variant proteins and polypeptide(s) - have enhanced binding affinity for immobilised-metal affinity matrices.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1991-024364/04.
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                                                                                                                                                                                                                                                                                                                                                                                         Claim 9; Page 23; 27pp; English.
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                                                                                             11 RRAPQTGIVDECCFRSCDLRRLEMYC 36
                                                                        36 RRAPOTGIVDECCERSCDLRRLEMYC 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Krivi GG;
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